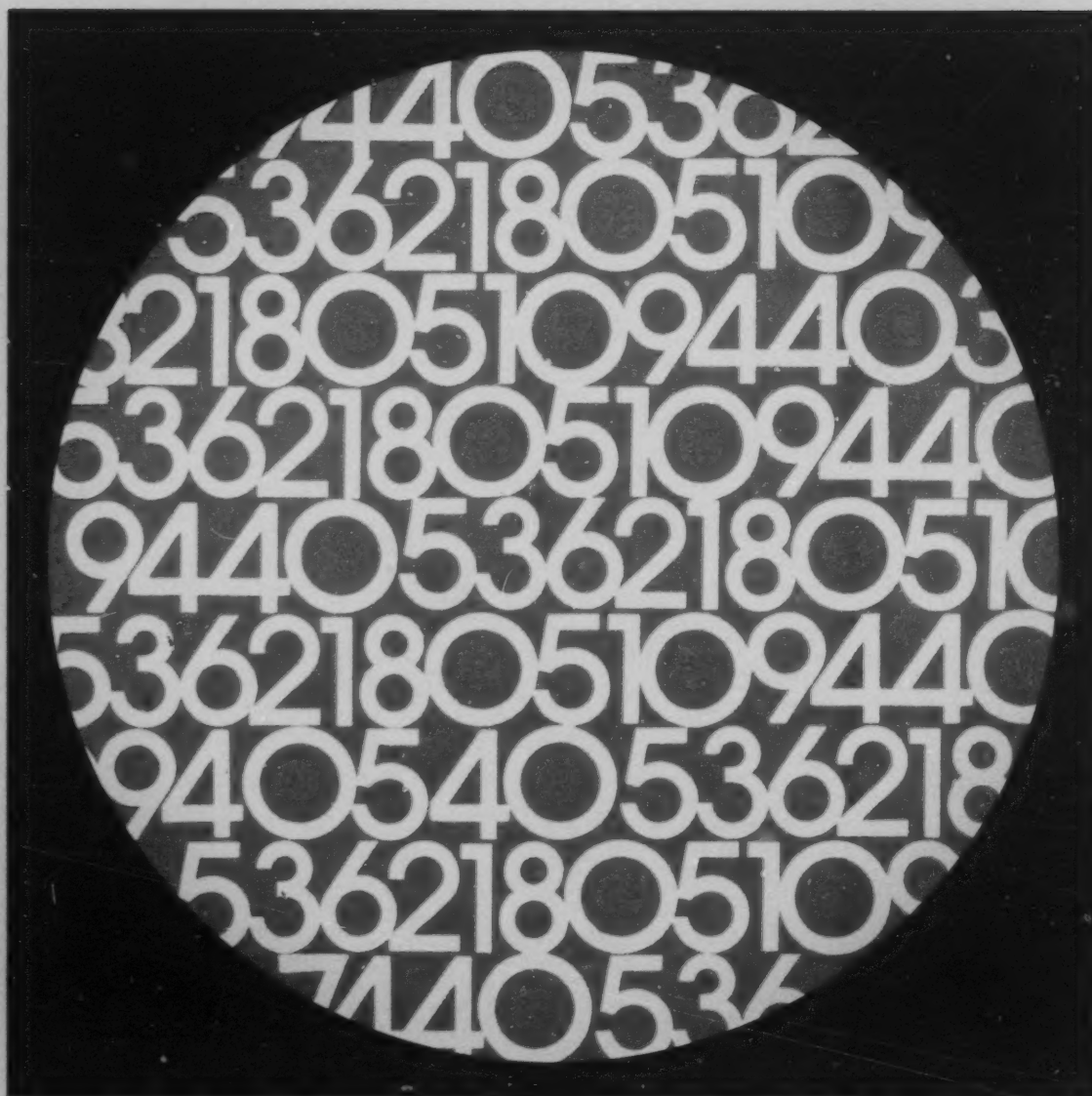


October
1983

Tax Expenditures: Current Issues and Five-Year Budget Projections for Fiscal Years 1984-1988

A CBO Report

As Required by Public Law 93-344



CONGRESS OF THE UNITED STATES

J932-47

CONGRESSIONAL BUDGET OFFICE

**TAX EXPENDITURES: CURRENT ISSUES
AND FIVE-YEAR BUDGET PROJECTIONS
FOR FISCAL YEARS 1984-1988**

**The Congress of the United States
Congressional Budget Office**

J932-47

PREFACE

The Congressional Budget Office (CBO) is required by Section 308(c) of the Congressional Budget Act of 1974 to issue a report annually that projects tax expenditures for each of the next five fiscal years. This report fulfills that statutory requirement for fiscal years 1984 to 1988.

The report also reviews the difficulties in defining and measuring tax expenditures. Different interpretations of these issues may produce different tax expenditure lists. The report compares the revenue loss and outlay equivalent approaches to estimating tax expenditures and outlines the differences between the recent Congressional and Administration tax expenditure lists. Finally, the report surveys the use of tax expenditure lists in other countries to show how other governments have applied this concept. These comparisons help to demonstrate the difficulties involved in defining and measuring tax expenditures and to illustrate the usefulness of information on tax expenditures.

The report was prepared by Martha J. Smith and Robert Lucke of CBO's Tax Analysis Division, under the supervision of James M. Verdier and Rosemary Marcuss. A number of persons inside and outside CBO provided valuable comments, including Peter Davis, Larry Dildine, Robert L. Faherty, Seymour Fiekowsky, Alfred B. Fitt, Harvey Galper, Robert N. Hartman, Paul R. McDaniel, Michael McKee, Joseph Minarik, Kathleen O'Connell, Joseph A. Pechman, Frederick C. Ribe, Stanley S. Surrey, Stephan Thurman, Paul Van de Water, and James W. Wetzler. In addition, valuable assistance on the international experience chapter was provided by M.E. Aldons, Bernard Castagnede, J.J.M. Exeter, Max Frank, Wolfgang Glomb, Victor Halberstadt, Peter Heller, Lotfi Maktouf, Nils Mattsson, Bonnie Moynihan, J.P. Owens, Jean-Francois Pons, G. Renard, Juan Rincon, Phillip M. Smith, and T.S. Ward. Patricia H. Johnston edited the manuscript and Linda Brockman and Shirley Hornbuckle typed it.

Rudolph G. Penner
Director

October 1983

CONTENTS

	<u>Page</u>
PREFACE	iii
SUMMARY	xi
CHAPTER I. INTRODUCTION	1
Definition	1
Measurement	2
Revenue Losses and Outlay Equivalents	2
Arithmetic Totals	3
Recent Changes in Tax Expenditures	4
CHAPTER II. DIFFERENCES BETWEEN TAX EXPENDITURE LISTS	7
Interpreting the Reference Tax Structure	7
Differences Between the Lists	9
Outlay Equivalents	12
Measurement	12
Critique of the Outlay Equiv- alent Approach	14
Revenue Loss Estimates	19
CHAPTER III. EXPERIENCE WITH TAX EXPENDITURE BUDGETING IN OTHER COUNTRIES	23
Other Countries' Experience with Tax Expenditure Budgeting	25
The Federal Republic of Germany	25
Austria	28
Canada	28
The United Kingdom	30
France	32
Spain	37
Australia	37
The Netherlands	40
Ireland	40

CONTENTS (Continued)

	<u>Page</u>
CHAPTER III. (CONTINUED)	
Belgium	41
International Comparisons	42
Lessons To Be Learned From the Inter- national Experience	43
Analytical and Technical Requirements	43
Comparison with the United States	43
APPENDIX A. TAX EXPENDITURE ESTIMATES FOR FISCAL YEARS 1983-1988	47
APPENDIX B. TAX EXPENDITURES WITH EXPIRATION DATES	59
APPENDIX C. DIFFERENCES BETWEEN THE ADMIN- STRATION AND JCT/CBO TAX EXPEN- DITURE LISTS	63
APPENDIX D. DIFFERENCES IN MEASURING REVENUE LOSSES AND OUTLAY EQUIVALENTS	71

TABLES

	<u>Page</u>
TABLE 1. ESTIMATED REVENUE EFFECTS OF CHANGES IN TAX EXPENDITURES IN THE TAX EQUITY AND FISCAL RESPONSIBILITY ACT OF 1982, FISCAL YEARS 1983-1987	5
TABLE 2. PROVISIONS INCLUDED IN THE CONGRESSIONAL TAX EXPENDITURE LIST BUT NOT IN THE ADMINISTRATION LIST	10
TABLE 3. COMPARISON OF REVENUE LOSSES AND OUT- LAY EQUIVALENTS FOR SELECTED TAX EXPENDITURES	18
TABLE 4. GENERAL GOVERNMENT FINANCIAL BALANCES	24
TABLE 5. FEDERAL REPUBLIC OF GERMANY: REVENUE LOSS FROM TAX RELIEF BY AREA OF ECO- NOMIC ACTIVITY, 1979 TO 1982	27
TABLE 6. FRANCE: TAX EXPENDITURES BY TAX SOURCE, POLICY OBJECTIVE, AND TYPE OF BENEFICIARY FOR 1980 AND 1982	33
TABLE 7. SPAIN: TAX EXPENDITURES DISTRIBUTED BY BUDGET FUNCTION, 1981 AND 1983	38

APPENDIX TABLES

TABLE A-1. TAX EXPENDITURE ESTIMATES BY FUNCTION AND SUBFUNCTION, FISCAL YEARS 1983-1988	48
TABLE B-1. TAX EXPENDITURES WITH EXPIRATION DATES	60
TABLE D-1. CALCULATION OF OUTLAY (LOAN) EQUIV- ALENT FOR AN ASSET IN THE FIVE-YEAR RECOVERY CLASS	76

SUMMARY

Since the tax expenditure concept was first developed in the 1960s, the United States and several other countries have found that it can be a useful tool for government budgeting and policy analysis. When all the tax expenditure provisions are shown in one place, policymakers can make decisions with a better understanding of the total allocation of government resources among policy objectives, economic sectors, and categories of beneficiaries. By providing information on the amount of government subsidy delivered through the tax system, tax expenditure lists correspond to the listings of outlay programs in federal budgets. Review of both direct subsidies and tax expenditures may be especially useful when a government is seeking to reduce large federal deficits.

DEFINITION

Tax expenditures are provisions in the tax code that provide incentives for particular kinds of activities or that give special or selective tax relief to certain groups of taxpayers. The investment tax credit, for example, provides an incentive for firms to invest in business machinery and equipment, while the extra \$1,000 personal exemption for those age 65 or over gives tax relief to this particular group of taxpayers. Through these allocations of government tax resources, tax expenditures are comparable to direct spending programs. The most recent list of tax expenditure estimates, compiled by the Joint Committee on Taxation and the Congressional Budget Office (JCT/CBO), contains 105 provisions and is presented in Appendix A.

Certain features of an income tax are considered integral parts of the basic structure of the tax and therefore are not viewed as tax expenditures, which are defined as exceptions to these basic tax rules. The integral features include the general rate schedules and exemption levels, the general rules defining who is subject to tax and what accounting periods should be used, and deductions for the cost of earning income.

Although the tax expenditure concept appears straightforward, a number of complicated definitional issues surround both the selection and measurement of tax expenditures. One fundamental problem is choosing a consistent set of basic tax rules—called "reference" tax rules—as the standard against which tax expenditures are selected and measured. Although there is general agreement about the reference tax rules, some

tax analysts consider several provisions to be part of the reference tax structure while others do not. Until recently, the Congress and the Administration have generally concurred on which provisions should be considered part of the basic tax structure and which should be viewed as tax expenditures.

MEASUREMENT

The tax expenditure estimates provided in this report are measured on the basis of their "revenue loss." The revenue loss from each tax expenditure is estimated by comparing the revenue raised under current law with the revenue that would be raised if the provision had never existed, assuming that both taxpayer behavior and all other tax provisions remain the same as they are under current law. This is not an estimate of the amount of revenue that would be gained if the provision were repealed, since repeal of the provision probably would change taxpayer behavior in ways that could significantly reduce the revenue gain. Furthermore, the estimates measure only the isolated effect of each provision. Interactions among different tax expenditures and other tax provisions could make the revenue gain from repealing several tax expenditures together either more or less than their repeal separately. It is, therefore, difficult to measure how much revenue the federal government does not collect because of each tax expenditure provision. The amount of revenue the government collects under existing law can be observed directly; the amount of revenue that would be collected under some different law can never be observed directly and can only be estimated.

While estimates of individual tax expenditures are useful in quantifying the budgetary effect of each provision, the arithmetic total of all the tax expenditure estimates has significant limitations. Since the cost of each tax expenditure is estimated by determining how much additional revenue would be collected if the provision did not exist, adding together estimates of several different tax expenditures does not produce a valid estimate of the cost of the group as a whole. For example, as a result of changing any one tax expenditure provision, more taxpayers might use the standard deduction instead of itemizing their deductions. On the other hand, some taxpayers' taxable income might increase and therefore be taxed at higher marginal rates. When more than one tax expenditure provision is changed, the total revenue effect of behavioral and economic interactions should be taken into account.

DIFFERENCES BETWEEN THE ADMINISTRATION AND THE CONGRESSIONAL TAX EXPENDITURE LISTS

Definitional Issues

Despite the general agreement that exists about which provisions in the tax code represent tax expenditures, some cases are not clear-cut. Depending on how the basic tax rules are defined, certain provisions may or may not be considered tax expenditures. For example, the Accelerated Cost Recovery System (ACRS) is counted as a tax expenditure by the Congressional Budget Office and the Joint Committee on Taxation, but not by the Administration. Because the CBO and the JCT assume a different set of basic tax rules than does the Administration, the CBO/JCT list includes 13 provisions not included by the Administration.

The most important distinction between the Congressional and Administration baseline, or reference, tax rules is that the CBO and the JCT use a broader definition of income to define the tax base. Under the Congressional reference tax rules, most income, from whatever source, is assumed to be subject to tax. Any provision that reduces this income measure or reduces the tax otherwise payable is considered a tax expenditure.

The Administration takes a different approach in defining tax expenditures. Under the current Treasury rules, a provision must satisfy two conditions in order to be classified as a tax expenditure:

- o The provision must be "special" in that it applies to a narrow class of transactions or taxpayers; and
- o There must be a general provision to which the "special" provision is a clear exception. (See The Budget of the United States Government, Fiscal Year 1984, "Special Analysis G," p. G-5.)

These conditions obviate the need to define the base of a conventional income tax. Various provisions are compared to the set of general rules currently in the tax code in order to determine whether they are "special." Although the methods for defining tax expenditures used by the CBO and the JCT and the Treasury are similar, they result in differences when a general rule in current tax law, such as ACRS, differs from the rule that prevails under the JCT/CBO definition of the basic income tax rules.

Measurement Issues

The CBO and the JCT estimates of tax expenditures are based solely on the amount of revenue that the federal government forgoes as a result of special provisions in the tax code. In contrast, "Special Analysis G" of the 1984 budget presents estimates of tax expenditures calculated according to the "outlay equivalent" concept, as well as the traditional revenue loss estimates. The outlay equivalent approach estimates a tax expenditure's cost as the amount of direct outlays that would be required to provide the same after-tax benefit. Outlay equivalents are estimated in a similar manner to revenue loss estimates, except that they are often increased to reflect the fact that a comparable outlay program would result in additional taxable income. The Administration has added this information because the outlay equivalent approach provides estimates of tax expenditures that more closely correspond to estimates of direct expenditures.

TAX EXPENDITURE BUDGETS IN OTHER COUNTRIES

Government analysts in several countries have developed tax expenditure lists to help emphasize the total level of government resources devoted to various sectors of their economies and to provide more information for long-term planning. The Federal Republic of Germany was the first country to supply a comprehensive list of tax subsidies in its budget documents, after a 1967 law required biennial reports on direct and tax subsidies. The United States has published annual tax expenditure lists since 1968 and has included a list in its budget documents every year since 1976, as required by the Congressional Budget Act of 1974.

In the 1970s, high deficits forced several other governments to use new institutional procedures, such as tax expenditure budgets, to help control government spending. Austria has published an annual report on direct and tax subsidies similar to the German report since 1978. Canada, the United Kingdom, France, Spain, and Australia first published tax expenditure lists or more general lists of tax reliefs and incentives in 1979 and 1980. In Japan, estimates of "special tax provisions" (mainly tax expenditures) are now usually provided to the legislature at budget time, even though these estimates are not required by law. Government tax analysts have also begun to develop tax expenditure lists in Belgium, Ireland, the Netherlands, New Zealand, and Sweden.

CHAPTER I. INTRODUCTION

DEFINITION

Tax expenditures are provisions in the tax code that provide incentives for particular kinds of activities or that give special or selective tax relief to certain groups of taxpayers. The investment tax credit, for example, provides an incentive for investment in business machinery and equipment, while the extra \$1,000 personal exemption for those age 65 or over gives tax relief to that group of taxpayers. In this way, tax expenditures are comparable to direct spending programs that provide special subsidies to certain groups or activities. Tax subsidies, like direct spending programs, are used by the government to allocate resources toward certain activities. Appendix A presents the most recent list of tax expenditure estimates compiled by the Joint Committee on Taxation and the Congressional Budget Office. The listing contains 105 provisions.

The definition of tax expenditures used in this report is based on the distinction between the basic structural features of an income tax and those provisions that are exceptions to these basic rules. The basic features are generally referred to as the "reference" tax rules. These rules include the general rate schedules and exemption levels, the general rules defining who is subject to tax and what accounting period should be used, and all deductions for the costs of earning income. Since the reference tax rules are an integral part of the income tax, they are not considered tax expenditures, but rather form the standard against which tax expenditures are selected and measured. Although there is general agreement about the reference tax rules, tax analysts do disagree about a few provisions. While some analysts consider these provisions as part of the basic tax structure, others define them as tax expenditures.

It is sometimes difficult to distinguish between tax expenditures and provisions that are part of the basic, or reference, structure of the tax code. The deduction for two-earner married couples, for example, is treated as a tax expenditure in the Joint Committee on Taxation/Congressional Budget Office (JCT/CBO) list, while it is not included by the Administration. If the Congress had adopted a broader approach to this problem of the "marriage penalty" and allowed married couples to be taxed separately at the lower rates applicable to single persons, the JCT/CBO would probably have regarded the change as a modification of the basic tax structure rather than as a tax expenditure.

Until recently, there has been general agreement between the Congress and the Administration about which provisions should be considered part of the reference tax structure and which provisions should be considered tax expenditures. In its last two tax expenditure budgets, however, the Administration has adopted a different and somewhat narrower definition of tax expenditures than the one used by the Joint Tax Committee and the Congressional Budget Office. The differences between the Administration and the JCT/CBO tax expenditure budgets are discussed in more detail in Chapter II and in Appendix C.

MEASUREMENT

Revenue Losses and Outlay Equivalents

Tax expenditure estimates presented in this report are measured by the JCT/CBO on the basis of their "revenue loss,"--that is, the amount of revenue that the government forgoes as the result of the special provisions in the tax code. "Special Analysis G" of the U.S. Government Budget for 1984 presents estimates of tax expenditures calculated according to the "outlay equivalent" concept, as well as the traditional revenue loss estimates.

The revenue loss from each tax expenditure is estimated by comparing the revenue raised under current law with the revenue that would be raised if the specified provision did not exist, assuming that both taxpayer behavior and all other tax provisions remained the same. This is not an estimate of the amount of revenue that would be gained if the provision were repealed, since repeal of the provision would probably change taxpayer behavior in ways that would generally reduce the revenue gain. Furthermore, the individual revenue loss estimates for several provisions cannot be added together because interactions among different tax expenditures and other tax provisions could make their joint revenue loss either more or less than their sum.

Under the revenue loss approach, difficult measurement problems arise in estimating how much revenue the federal government does not collect because of each tax expenditure provision. The amount of revenue the government collects under existing law can be observed directly; the amount of revenue that would be collected under some different law can never be observed and can only be estimated. The future effects of spending programs and general tax rules must also be estimated, of course, but eventually there are actual outlays and tax collections against which to compare the estimates. Since a tax system without tax expenditures is an abstraction, the revenue yield of such a system cannot be observed and, therefore, can only be estimated imprecisely.

The outlay equivalent approach estimates a tax expenditure's cost as the amount of direct subsidy that would be required to provide the same benefit. Outlay equivalents are estimated in a manner similar to revenue loss estimates, with one exception: they are often increased to include the income taxes resulting from the additional taxable income frequently produced by comparable outlay programs. (This methodology is referred to in tax jargon as "grossing up.") The outlay equivalent, therefore, includes not only the subsidy amount, but also the extra amount that would be paid in income tax by the recipients of the benefit. The Administration has added this information because the outlay equivalent approach makes tax expenditure estimates more consistent with direct expenditure estimates, thus permitting comparison on a similar basis.

The exemption of certain housing and meal allowances for military personnel is one example of a tax expenditure that needs to include the additional income taxes to reflect its outlay equivalent. The revenue loss estimate for this provision is based on the tax that would be owed if the value of these benefits were included in the taxable income of the recipients. By contrast, the outlay equivalent estimate reflects the additional pre-tax income that military personnel would have to be paid to raise their income after federal taxes by the amount of the benefits. The outlay equivalent amount for this exemption can be compared with other defense outlays on a consistent basis.

If a tax expenditure were actually replaced by a direct outlay, the resulting increase in money income might well be subject to state and/or local taxes. In that case, the outlay equivalent would not actually leave the recipient with the same total income after all taxes as was provided by the tax expenditure. Therefore, the outlay expenditure concept does not necessarily provide an estimate of the full cost to the federal government of replacing a tax expenditure with a direct benefit of the same value to the recipient.

Arithmetic Totals

While estimates of individual tax expenditures may permit useful comparisons with similar direct outlays, the arithmetic total of several or of all the tax expenditure estimates has significant limitations. Since the cost of each tax expenditure is estimated by determining how much additional revenue would be collected if the provision did not exist, some special problems are introduced when more than one tax expenditure is involved. If three or four tax expenditures that take the form of personal deductions did not exist, for example, more taxpayers would use the standard deduction (zero bracket amount), and the net revenue cost would be less than if the deductions were estimated separately and then summed.

The standard deduction would absorb part of the cost that would otherwise be assigned to the tax expenditures. On the other hand, if three or four tax expenditures that took the form of exclusions from income no longer existed, more income would be taxed at higher marginal tax rates, so that the cost of several exclusions would be more than if the exclusions were individually estimated and then added together. The simple aggregation of several tax expenditures discussed here would not provide an accurate estimate of their joint cost.

RECENT CHANGES IN TAX EXPENDITURES

Some major changes in tax expenditures were enacted in the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA, P.L. 97-248). Thirteen provisions of the act reduced existing tax expenditures; two of these--the alternative minimum tax for individuals and the reduction in business preference items--applied to a wide variety of tax expenditures. Also, two provisions of the act increased tax expenditures, with the major increase coming from an expansion and extension of the targeted jobs tax credit. As shown in Table 1, the tax expenditure changes in TEFRA totaled an estimated net increase in projected revenues of \$54.6 billion over fiscal years 1984-1986. These changes are reflected in the tax expenditure estimates included in Appendix A.

The only new tax expenditure enacted since TEFRA is the tax credit for orphan drug research. A provision in the Orphan Drug Act of 1983 (P.L. 97-414) provides for a 50 percent tax credit for expenses of qualified clinical testing of drugs to treat certain rare diseases or conditions. The provision will result in an estimated revenue loss of \$40 million over the 1984-1986 period and is scheduled to expire at the end of 1987.

In addition, the Social Security Amendments of 1983 (P.L. 98-21), enacted in April, include provisions for taxation of certain Social Security and railroad retirement benefits that reduce two existing tax expenditures. According to the new amendments, if the sum of half of Social Security benefits plus adjusted gross income (including tax-exempt bond interest) exceeds a certain threshold (\$25,000 for single filers and \$32,000 for couples filing jointly), the portion of Social Security benefits that exceeds the threshold is added to taxable income. Some railroad retirement benefits are treated in the same way. These reductions in the income tax exclusions for Social Security and railroad retirement benefits will raise revenues by about \$7 billion over fiscal years 1984-1986. The changes are not reflected in the tax expenditure list in Appendix A, however, because the amendments were enacted after the list was compiled.

TABLE 1. ESTIMATED REVENUE EFFECTS OF CHANGES IN TAX EXPENDITURES IN THE TAX EQUITY AND FISCAL RESPONSIBILITY ACT OF 1982, FISCAL YEARS 1983-1987 (In millions of dollars)

Change	1983	1984	1985	1986	1987
<u>Reductions in Tax Expenditures</u>					
Alternative minimum tax	a	+659	+701	+741	+729
Medical deduction	+272	+1,788	+1,671	+1,795	+1,947
Ten percent casualty deduction floor	---	+666	+734	+800	+880
Reduction in corporate preference items	+515	+936	+948	+918	+995
Investment tax credit basis adjustment	+362	+1,374	+2,658	+4,109	+5,579
Limit ITC to 85 percent of tax liability	+152	+259	+213	+178	+164
Accelerated depreciation--1985 and 1986	---	---	+1,541	+9,907	+18,442
Construction period interest and taxes	+555	+1,179	+1,206	+1,084	+819
Modifications to pre-ERTA and safe-harbor leasing rules ^b	+1,036	+2,649	+4,252	+5,496	+7,000
Limit on U.S. possessions credit	+201	+428	+473	+516	+559
Private purpose tax-exempt bonds	+63	+261	+539	+748	+1,076
Pension provisions	+194	+780	+870	+970	+1,058
Reduction to \$18,000/12,000 of income threshold for tax on unemployment compensation benefits	<u>+763</u>	<u>+734</u>	<u>+611</u>	<u>+618</u>	<u>+650</u>
Subtotal	+4,113	+11,713	+16,417	+27,880	+39,898
<u>Increases in Tax Expenditures</u>					
Targeted jobs credit	-182	-551	-591	-271	-54
National Research Service Awards	<u>-8</u>	<u>-7</u>	<u>-4</u>	<u>-2</u>	<u>a</u>
Subtotal	-190	-558	-595	-273	-54
Total	+3,923	+11,155	+15,822	+27,607	+39,844

SOURCE: Summary of the Revenue Provisions of H.R. 4961 (The Tax Equity and Fiscal Responsibility Act of 1982), prepared by the Joint Committee on Taxation, August 24, 1982.

a. Negligible.

b. ERTA = Economic Recovery Tax Act of 1981.

CHAPTER II. DIFFERENCES BETWEEN TAX EXPENDITURE LISTS

Tax expenditures are provisions in the tax code that "allow a special exclusion, exemption, or deduction from gross income or . . . provide a special credit, a preferential rate of tax, or a deferral of tax liability."¹ In general, tax expenditures serve as substitutes for outlay programs to achieve certain national policy goals. Any tax code provision that is not consistent with the reference personal or corporate income tax structure is considered a tax expenditure.

INTERPRETING THE REFERENCE TAX STRUCTURE

The reference tax structure essentially consists of tax rules that define the tax base and include the basic elements of an income tax. For the individual income tax, these rules include the progressive rate structure, the zero bracket amount, and personal exemptions for the taxpayer and each dependent. The rate structure is considered to be constant and tax rates below the 50 percent maximum are not viewed as tax expenditures. The tax rules also allow for the deduction of costs related to producing income, such as business or investment expenses. The reference tax structure views the individual and corporate tax systems separately.² The basic tax rules for the corporate income tax also include deductions for the expenses related to producing income, including depreciation and depletion. Exceptions to these tax rules that provide subsidies to certain classes of taxpayers or firms or create incentives for particular types of economic activities are defined as tax expenditures.

Since the adoption of the Congressional Budget Act of 1974, the Joint Committee on Taxation and the Congressional Budget Office (JCT/CBO) generally have defined tax expenditures by using reference tax rules that

¹ The Congressional Budget Act of 1974, Sec. 3(a)(3).

² This approach essentially treats the corporation and the individual as separate legal entities. It can be argued that under a comprehensive income tax, the two systems would be integrated and all income would be subject only to the recipient's personal tax rate. According to this view, both corporate and personal income would be subject to tax under one integrated system and not under the two independent structures that currently exist.

consist of tax provisions associated with a conventional income tax. The tax base includes income from all sources, with the exception of several items, such as in-kind income or gifts. Capital gains are not counted as income as they accrue, but are included when they are realized by the taxpayer. The measurement of capital income is based on an "historical cost" standard and does not include an adjustment for inflation. Finally, imputed income (from housing or consumer durables, for example) is not included in the definition of the tax base. For purposes of defining and measuring tax expenditures, the JCT/CBO reference tax rules form a modified version of a comprehensive income tax.

Until the fiscal year 1983 budget, there were only a few differences between the Administration and the JCT/CBO tax expenditure lists, reflecting a consensus on the definition of the reference tax structure. In its 1983 "Special Analysis G," however, the Administration revised its procedure for selecting items to include on its tax expenditure list. Under the current Administration rules, two conditions are necessary for a provision to qualify as a tax expenditure:

- o The provision must be "special" in that it applies to a narrow class of transactions or taxpayers; and
- o There must be a general provision to which the "special" provision is a clear exception.³

This method of defining tax expenditures essentially obviates the need for a hypothetical standard to determine which elements should be considered as part of a conventional income tax. The set of general tax rules in the existing tax code is used as the reference standard by which various provisions are ascertained to be "special."

Because the general tax code rules used by the Administration are mostly consistent with the definition of the tax base used by the JCT/CBO, the Administration and the Congress generally agree about which provisions are tax expenditures. Several differences in the rules used, however, result in diverse interpretations of how to apply the tax expenditure concept in certain cases. Thus, the Administration and the JCT and CBO have disagreed about listing certain provisions as tax expenditures.

Even though the approach used by the Administration yields a list of provisions that is quite similar to that of the JCT/CBO, the Administration's selection method raises two concerns. First, the general statutory

³ The Budget of the U.S. Government, Fiscal year 1983, "Special Analysis G," p. G-5.

rules in the tax code are difficult to interpret in certain cases. For example, 60 percent of the gain from the sale of assets held for more than one year is excluded from an individual's income. This provision applies to a broad class of transactions and could be considered a general rule. Thus, it could be argued that the capital gains provision does not constitute a tax expenditure. The Administration does not find the capital gains exclusion sufficiently general, however, and includes it as a tax expenditure. Indeed, its rationale for including capital gains as a tax expenditure is based on the general tax code rule that income from any source is considered taxable.⁴

The second problem with the Administration's selection procedure arises when a general tax code provision conflicts with the economic definition of income. As discussed below, this is especially important in the case of asset depreciation. The general depreciation rule used by the Administration--the Accelerated Cost Recovery System (ACRS)--is inconsistent with actual economic depreciation. As a result, firms are allowed to shelter part of their income from taxation by deducting in excess of actual depreciation. To the extent that general tax rules, as defined by the tax code, conflict with the separate income standard used by the JCT and CBO, discrepancies between the two lists arise.

DIFFERENCES BETWEEN THE LISTS

For fiscal year 1984, the JCT/CBO tax expenditure list contains 13 provisions not included on the Administration list (see Table 2). The rationale for including these items is that they are arguably justifiable and appropriate as long as the list remains purely informational. Because the lists are solely intended to convey the revenue losses from certain code provisions--with no judgment made as to their desirability or effectiveness--there seems little reason to exclude the debatable cases.

The importance of deciding which items legitimately constitute tax expenditures would be much greater if tax expenditures were reviewed more closely as part of the Congressional budget process. If tax expenditures were placed under the purview of the authorizing committees, for example, a clearer delineation of what constitutes a tax expenditure would have to be established. Those provisions that are basic structural parts of the tax code (for example, tax rates or filing units) would not be subject to the jurisdiction of the authorizing committees, but would remain solely under the House Ways and Means and Senate Finance Committees.

⁴ Ibid.

TABLE 2. PROVISIONS INCLUDED IN THE CONGRESSIONAL TAX EXPENDITURE LIST BUT NOT IN THE ADMINISTRATION LIST (By fiscal year, in millions of dollars)

Tax Expenditure	1983	1984	1985	1986	1987	1988
Deferral of Income of Controlled Foreign Corporations	430	345	375	390	420	455
Suspension of Regulations Relating to Allocation Under Section 861 of Research Experimental Expenditures	120	60	a	0	0	0
Exclusion of Payments in Aid of Construction of Water, Sewage, Gas and Electric Utilities	45	75	75	80	75	70
Deductibility of Patronage Dividends and Certain Other Items of Cooperatives	560	580	600	615	640	660
Exclusion of Certain Agricultural Cost-Sharing Payments	50	45	40	30	25	25
Depreciation on Rental Housing in Excess of Straight-line	695	820	885	930	975	1,005
Depreciation on Buildings Other than Rental Housing in Excess of Straight-line	325	365	400	450	495	545
Accelerated Depreciation on Equipment Other than Leased Property	10,525	18,325	21,705	20,270	16,365	15,805
Reduced Rates on the First \$100,000 of Corporate Income	5,690	6,525	7,025	8,060	8,765	9,090
Exclusion of Scholarship and Fellowship Income	415	375	395	410	435	460
Exclusion of Employer-provided Child Care	10	25	55	85	120	155
Deduction for Two-earner Married Couples	3,555	5,835	6,350	6,935	7,600	8,460
Exclusion of Public Assistance Benefits	430	430	440	455	470	485

SOURCES: For the Administration list: The Budget of the United States Government, Fiscal Year 1984, Special Analysis G, "Tax Expenditures," Table G-2 (February 1983); for the Congressional list: Joint Committee on Taxation, Estimates of Federal Tax Expenditures for Fiscal Years 1983-1988 (March 7, 1983).

NOTE: The Administration does not list Individual Retirement Accounts as a separate tax expenditure, but includes them in the estimate for the net exclusion of pension contributions and earnings: "plans for self-employed and others." The Administration does include "income of trusts to finance supplemental unemployment benefits," under the heading of "exclusion of other employee benefits," which is estimated to increase tax expenditures by \$20 million in fiscal years 1982 and 1983. The Congressional list omits this item.

a. Less than \$2.5 million.

As mentioned above, one of the major differences between the Administration and the JCT/CBO tax expenditure lists is the treatment of depreciation under ACRS. The Administration's exclusion of ACRS from its list is based on the argument that ACRS constitutes the general income tax rule governing the recovery of the cost of depreciable property. Because ACRS applies to the full range of depreciable assets, it is not viewed as a special provision, but rather as the standard practice. In contrast, the JCT and CBO count as a tax expenditure the ACRS deduction in excess of accelerated depreciation rates for equipment (straight-line depreciation for structures) over an asset's useful life.⁵ Under an economic definition of income, depreciation would be allowed as an expense of earning income and it would be limited to an asset's actual (or economic) depreciation.⁶ Because actual economic depreciation rates are not easily measured, the JCT and CBO have chosen as their depreciation benchmark generally accepted accounting methods based on an asset's expected useful life. Although these methods are not ideal, they may reasonably approximate actual depreciation.

For purposes of this provision, the Administration uses the actual ACRS tax code provision as part of its reference tax structure. As discussed above, there is little relationship between ACRS and an asset's actual depreciation.⁷ ACRS was not intended to reflect actual depreciation—it was adopted to subsidize investment in producers' fixed capital in order to stimulate capital formation. The fact that ACRS is the general tax code rule for cost recovery does not preclude it from consideration as a

⁵ The useful life is an asset's midpoint Asset Depreciation Range (ADR) life. Prior to the legislation of ACRS, the optional 20 percent reduction in an asset's midpoint life under the ADR system was included as a tax expenditure by both the JCT and CBO and the Administration.

⁶ Actual (or economic) depreciation of an asset equals its change in market value from one year to the next. This amount is calculated in constant dollars and indexed for inflation. One of the special problems with the present estimating method is that it fails to account for the reduction in real depreciation allowances that occur because of the interaction between inflation and historical cost accounting. Although the JCT/CBO recognize this as a concern, an adjustment has not been made to reflect this problem.

⁷ See, for example, Gregg A. Esenwein and Jane Gravelle, Effective Tax Rates Under the Accelerated Cost Recovery System (ACRS) and the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), Congressional Research Service (January 3, 1983).

tax expenditure. Because ACRS allows taxpayers to defer tax payments into future periods, it acts as an interest-free loan from the federal government to businesses. To the extent that ACRS results in a deferral of tax liability, it satisfies the Budget Act's standard for inclusion as a tax expenditure.

It should be noted that neither the Administration nor the JCT/CBO reference tax structures include adjustments to capital income to reflect inflation. That is, both standards allow for the taxation of purely inflationary gains, even though an economic definition of income would exclude such gains from the income base. In the case of depreciation, the ACRS rules may more closely reflect economic depreciation, resulting in a better measure of economic income, during periods of relatively high inflation.

The other differences between the Administration and the JCT/CBO lists, shown in Table 2, are discussed in Appendix C.

OUTLAY EQUIVALENTS

Measurement

The JCT/CBO estimates of tax expenditures are based on the amount of revenue that the federal government forgoes as the result of the special provisions in the tax code. "Special Analysis G" of the federal budget presents estimates for tax expenditures calculated according to the outlay equivalent concept, as well as on the traditional revenue loss basis. The outlay equivalent approach is intended to reflect the amount that would be required to provide an equivalent level of resources through a direct expenditure program. Thus, the outlay equivalent concept attempts to make the measurement of tax expenditures correspond to direct expenditures so that they can be compared on the same basis.

For example, if the Congress considered providing incentives for companies to produce more oil, two alternative methods might be used: a tax exclusion (for example, percentage depletion) or a direct outlay (for instance, price supports). In analyzing the two different approaches, it is important to measure the budgetary costs of the different programs on a comparable basis. Suppose the Congress wanted to provide domestic oil companies with an effective oil price increase of \$3.00 per barrel. If the tax code was used, income from oil production could be partially excluded from the corporate tax. In contrast, the federal government could provide price supports to increase the price of oil by \$3.00. This might be handled in a manner analogous to the current price supports for agriculture.

These two oil production incentives can be measured on a revenue loss or an outlay equivalent basis. Consider an oil company that is subject to the 46 percent marginal corporate tax rate and produces 1,000 barrels of oil. Assume that the initial price of oil is \$30.00 per barrel, thereby generating a gross income of \$30,000 for the oil company. Operating expenses for the firm are assumed to be \$20,000 (\$20.00 per barrel), resulting in net taxable income of \$10,000.

By using the tax code, the Congress could raise the effective price of oil by excluding 21.7 percent of the company's gross oil income from taxation. Whereas taxable income per barrel of oil was initially \$10.00, resulting in an after-tax profit of \$5.40 per barrel, the tax exclusion would result in the same pretax net revenue of \$10.00, but the post-tax profit would rise to \$8.40 per barrel. By excluding 21.7 percent of the price of oil from gross income, gross taxable income (per barrel of oil) would be reduced from \$30.00 to \$23.48; net taxable income would be reduced from \$10.00 per barrel to \$3.48 per barrel. The tax per barrel is \$1.60 (.46 x \$3.48), leaving the firm with an after-tax income per barrel of \$8.40 (\$10.00 - \$1.60)—\$3.00 more than the original after-tax profit. In terms of the revenue forgone, this program would reduce tax collections by \$3.00 per barrel of oil, or \$3,000 for the firm as a whole. In this example, the revenue loss estimate from the tax expenditure would be the same \$3,000.

Alternatively, the direct outlay approach would involve paying the oil company a premium over the market price of oil for each barrel it produced. To achieve the same \$3.00 price increase as with the tax expenditure, the government would have to provide the oil firm with a guaranteed price of \$35.56 per barrel, or \$5.56 more than the original market price. The \$5.56 price increase would be reflected as an addition to the firm's taxable income and would be taxed at 46 percent. The extra taxes owed on the \$5.56 price increase would be \$2.56, leaving the firm with an after-tax increase in income of \$3.00 (\$5.56 - \$2.56) per barrel. The federal government's outlay for providing the price premium of \$5.56 would be \$5,560 in this example.

Even though both the tax and the direct outlay programs would result in the same after-tax increase in the price of oil (\$3.00), the gross cost to the government from the tax program would be \$2,560 (\$5,560 - \$3,000) less than the cost of the outlay program. This difference would arise solely because the two programs operate differently.

The gross outlay of \$5,560 for the direct outlay program would include \$3,000 for the higher oil price, plus \$2,560 for the extra income taxes arising from the higher gross income to the firm. If the program only provided a \$3,000 payment, the effective increase in the price of oil to the firm would be only \$1.62—\$1.38 less than the desired outcome. The

amount of direct spending necessary to achieve the same results as the tax program (\$5,560) is the outlay equivalent measure of the tax expenditure program. By definition, the outlay equivalent of a tax expenditure equals the amount necessary to finance an outlay program that would provide a comparable subsidy. This amount is larger than the revenue loss because it is increased in order to reflect the payment of higher income taxes under the outlay program (that is, it is "grossed-up").

These two programs can also be compared on a revenue loss basis that reflects their net effects on the federal deficit. Under this approach, the tax program's revenue loss (\$3,000) would equal the net effect on the budget deficit. When measured on a net budgetary basis, the outlay program also would equal \$3,000. This would occur because the additional gross outlay of \$5,560 gives rise to \$2,560 in additional taxes, yielding a net cost to the government of \$3,000.

From an overall budgetary viewpoint, the outlay equivalent estimates allow specific comparisons to be made between outlays and tax expenditures on a consistent basis. This approach enables the Congress to improve its ability to balance individual tax and spending programmatic alternatives.

Critique of the Outlay Equivalent Approach

One criticism that has been raised against the use of outlay equivalents is that "a concentration on outlay equivalent measurement has the flavor of presupposing the Congress would supplant each tax expenditure with a direct outlay program which exactly duplicates the tax expenditure program."⁸ The objection is based on the argument that an outlay program designed to have the same effect on taxpayers might have strange characteristics. As McDaniel and Surrey explain:

If faced with direct outlay programs having the same benefits as the tax expenditure items, it is a fairly easy conclusion that Congress would not replace them as is. The programs would be expensive as outlay items; they would lack any cost-benefit justification; they would, through the grossing-up, be clearly seen as upside-down programs because the gross-up must, under progressive rates, produce

⁸ Paul R. McDaniel and Stanley S. Surrey, "Tax Expenditures: How to Identify Them; How to Control Them," Tax Notes (May 24, 1982) p. 600.

higher outlays for the well-off as compared to those below the income levels of the upper brackets.⁹

The counter argument to this critique is twofold. First, the outlay equivalent measure does not assume that the Congress would actually enact the comparable outlay program--it merely addresses the question of how much such a program would cost. The outlay equivalent is an analytic device, just as are revenue loss estimates.

Second, the fact that the comparable outlay program has certain specific attributes may be very useful in evaluating current tax expenditures. For example, the fact that an outlay equivalent for a certain tax deduction provides greater benefits to higher income taxpayers (because of the progressive rate structure) may lead some to examine the use of the tax code for providing certain subsidies. Thus, analyzing the outlay program comparable to a tax expenditure may help in evaluating the benefits and costs of the tax expenditure itself. In addition, if some comparable outlay equivalent programs appear strange, it may imply that the tax code is, in fact, a better way to achieve certain national goals than are direct outlays.

Another consideration in the use of the outlay equivalent approach is the design of the comparable program and the proper tax treatment of the resulting outlays. In general, if the funds received from an outlay program would be included in taxable income under the basic tax rules, then the outlays should be increased (or grossed-up) to provide an equivalent after-tax benefit. Tax expenditures that would not result in a change in taxable income under the comparable outlay program need not be increased. The dividing line between tax expenditures that should be increased to determine their outlay equivalents and those that should not is fairly clear-cut. (Appendix D describes how outlay equivalents are derived by the Administration for several tax expenditures.)

Tax expenditures that result in a deferral of tax from the present to future years, such as those related to accelerated depreciation or expensed capital expenditures, are akin to interest-free loans. In calculating outlay equivalents, the deferred taxes, or "loan amounts," that arise from tax deferral provisions are not increased to reflect additional income taxes, because loan proceeds from direct or indirect government loans are exempt from tax under the reference tax rules. For these programs, the revenue

⁹ Ibid.

loss amount is equal to its outlay equivalent under the Administration's rules.¹⁰

A second group of tax expenditures that the Administration does not increase for income taxes are the provisions that directly subsidize the purchase of goods and services, such as the deductions for housing or medical insurance. Instead of providing the subsidy to the consumer, the comparable outlay program is assumed to provide payments directly to the vendors in exchange for an agreement to charge below-market prices. For example, in the case of medical insurance, sellers would receive a direct federal payment in exchange for charging lower insurance premiums. This is analogous to the Medicare or Medicaid programs, in which health-care providers are paid directly for their services. While the source of the vendors' income would shift in part from consumers to the government, their total income would remain unchanged. Similarly, taxpayers would lose their deduction, but would be charged correspondingly lower rates for health insurance. For the mortgage interest deduction, the comparable outlay program would pay lenders to provide subsidized mortgages, similar to the way in which the present guaranteed student loan program operates. As in the case of tax deferral, no gross-up would be needed if taxable incomes were left unchanged by the outlay programs.

For tax expenditure programs that effectively reduce prices paid by consumers for goods or services, the outlay equivalent program need not be designed to provide direct payments to vendors; the subsidy could just as easily be provided to the recipient who currently takes the deduction. Instead of providing a payment to health insurance providers in exchange for below-market insurance rates, the government could pay recipients a matching grant, depending on how much insurance they buy. Again a gross-up is not included by the Administration because the grant is viewed as a price reduction and not as an increment to income. Although the taxpayer is clearly better off with a lower price, the rebate is not considered as taxable income under the reference tax rules. In general, price discounts whether they are provided by the government or by a private business (for example, General Motors) are not considered taxable income.

¹⁰ The interest subsidy from the deferral of tax also is not included in the estimate of the outlay equivalent. In general, for direct government loan programs, the cost of the interest subsidy provided on below-market rate loans is not directly accounted for in the budget. In order to compare a direct lending program with a tax deferral program, it would be necessary to analyze the comparative interest subsidies provided by both programs, as well as the actual loan amounts.

According to another view of the price subsidies provided through the tax system, they should be counted as taxable income; therefore an increase for income taxes would be appropriate in figuring the outlay equivalent. In other words, price reductions for medical care or mortgage interest would constitute additions to taxable income and an increase would be necessary to reflect the extra income taxes. In this view, price reductions provided to employees by the private sector--such as reduced airline fares, free meals, or reduced tuition, would be counted as taxable income under the reference tax rules. Although general price discounts are not usually regarded as taxable income, it can be argued that selective price discounts, whether or not they are related to employment, should be considered taxable. For purposes of the Administration's outlay equivalent estimates, this argument implies that price discounts associated with employment should be grossed-up (for example, military fringe benefits), as well as nonemployment-related price discounts, such as the mortgage interest or medical expense deductions.

Tax expenditures require an adjustment to reflect increased tax payments only if their corresponding outlay programs would generate additional taxable income. (In the example of oil production incentives discussed above, the price support program generated additional taxable income.) Generally, these tax expenditure provisions exempt from taxable income same amount of income that would be taxed under a comprehensive income tax system, such as one in which the tax base included employer-provided fringe benefits, government transfer payments (Social Security, unemployment insurance, railroad retirement, and so forth), and all of capital gains. In addition, business deductions in excess of cost, such as percentage depletion or excess bad debt reserves that are not "repaid" in the form of higher future taxes, would have to be grossed-up, since these provisions effectively result in exclusions from taxable income.

In addition to the gross-up, outlay equivalents can also differ from revenue loss estimates because the outlay program is assumed to be spread out evenly over the year. Typically, revenue loss estimates are affected considerably by the collection patterns of the corporate and personal income taxes. The cash flow of direct spending programs can differ widely from the annual tax collection cycle, and the outlay equivalent calculations often assume an even flow over the year to make the estimates comparable to actual outlay programs. Thus, even for those tax expenditures that do not require an income tax gross-up, differences between the revenue losses and outlay equivalents can occur solely because of differences in timing factors.

The Administration's outlay equivalent and revenue loss estimates are shown in Table 3 for selected tax expenditures. The first five provisions in the table have not been increased to reflect additional income taxes;

TABLE 3. COMPARISON OF REVENUE LOSSES AND OUTLAY EQUIVALENTS FOR SELECTED TAX EXPENDITURES (By fiscal year, in millions of dollars)

Tax Expenditure	Revenue Loss		Outlay Equivalent	
	1983	1984	1983	1984
Deductibility of Medical Expenses	3,105	2,630	2,950	2,635
Deductibility of Charitable Contributions (Education)	775	840	770	805
Deductibility of Mortgage Interest on Owner-Occupied Homes	25,065	27,945	25,255	28,335
Deductibility of Property Taxes on Owner-Occupied Homes	8,765	9,535	8,810	9,645
Deductibility of Nonbusiness State and Local Government Taxes Other than on Owner-Occupied Homes	20,060	21,770	20,000	21,775
Exclusion of Benefits and Allowances to Armed Forces Personnel ^a	2,205	2,250	2,780	2,820
Exclusion of Employee Meals and Lodging (other than Military) ^a	680	725	755	805
Exclusion of Employer Contributions for Medical Insurance Premiums and Medical Care ^a	18,645	21,300	25,412	28,980
Net Exclusion of Pension Contributions and Earnings: Employer Plans ^a	49,700	56,560	70,005	78,780
Exclusion of Employee Benefits: Premiums on Group Term Life Insurance ^a	2,100	2,250	2,910	3,095

SOURCES: Joint Committee on Taxation, Estimates of Federal Tax Expenditures for Fiscal Years 1983-1988; the Budget of the United States Government, Fiscal Year 1984, "Special Analysis G."

- a. These tax expenditures have an outlay equivalent in excess of their revenue loss because they have been grossed-up for income taxes.

differences between the revenue loss and outlay equivalent estimates are solely the result of differences in timing. Under the Treasury procedures, these five provisions provide "price discounts" for certain activities and therefore do not generate additional taxable income. In each case, the revenue loss estimate reflects the level of resources that would be needed to provide the same subsidy if it had been provided on the outlay side of the budget.

The second five provisions in Table 3 reflect income taxes that would be payable if the subsidy was provided by a direct outlay program. For example, if military benefits were directly provided through outlays, it would cost \$2,820 million in 1984 to provide the same subsidy that is now provided through the tax code. The revenue loss for this provision is \$2,250 million and the difference (\$570 million) between the two estimates primarily represents the extra taxes that would be required to maintain the same subsidy level if the outlay equivalent approach was used. For budgetary purposes, the outlay equivalent estimate is relevant because it is consistent with other defense outlays that are measured on a pretax basis. In general, any provision that results in an exclusion from income, will require an income tax gross-up to put it on an outlay equivalent basis.

REVENUE LOSS ESTIMATES

Although the outlay equivalent estimates of various tax expenditures are useful in comparing tax versus direct expenditure programs, they are less relevant when the issue is raising revenue by cutting back a tax expenditure. In this context, the net revenue effect is important—not the comparable outlay equivalent. Thus, the traditional revenue loss estimates are more useful for analyzing alternatives for raising revenue.

The revenue loss estimates from tax expenditures do not represent the actual net gain from repeal of a given provision. Two major differences between the revenue loss estimates and the net revenue gain from repeal are the result of transitional provisions and behavioral changes. The revenue loss estimates are based on the assumption that the special provision has been in effect since the year it was actually passed, but in the initial year of any tax change, there would usually be some transitional effects caused by compliance or phase-in rules. When a provision provides benefits spread over more than one year (for example, accelerated depreciation or tax-exempt bonds), a repeal that only affects prospective activity (new investment or new issues of tax-exempt bonds) would raise much less revenue than if the repeal applied retroactively.

However, repeal of tax expenditures that are tax deferrals, such as ACRS or expensed research and development costs, could actually raise

more revenue in the first several years than the estimated revenue loss if the provisions had been in effect for several years before being repealed. This would occur because the revenue loss estimates are the "net" effect of the provision in any year--that is, the difference between deductions under the provision and deductions under prior law. For example, in the case of ACRS, accelerated depreciation allows firms to shift tax payments from the present to future periods. Over the long run, the revenue loss estimate will be the difference between the extra deductions provided by ACRS on new investments and the "repayment or turnaround" of deductions on older investments. (Deductions turn around when actual depreciation is greater than tax depreciation.) If ACRS were repealed after it had been in effect for several years, repeal would raise more revenue than the revenue loss itself. Because the revenue loss estimates are based on the assumption that the provision has been in effect since it actually became a part of the tax code, they may overstate or understate the revenue gain from the repeal of any provision.

It should also be emphasized that the tax expenditure estimates for revenue losses (and outlay equivalents) cannot be simply added together to estimate their combined effect. For example, the revenue loss estimate of several itemized deductions, such as interest, state and local taxes, and medical expenses, is less than the sum of their individual estimates because of interaction with the zero bracket amount. If, for example, the mortgage interest deduction did not exist, this might result in more use of the zero bracket amount by taxpayers who currently itemize deductions, thereby reducing the revenue loss estimates of other itemized deductions, such as those for state taxes or consumer interest. The Treasury has demonstrated the magnitude of this aggregation problem by measuring the combined effect of all itemized deductions that are tax expenditures. In 1982, the sum of the separate estimates for each itemized deduction amounted to a \$81.8 billion revenue loss, whereas when estimated together, the deductions resulted in a revenue loss of only \$62.3 billion, or 24 percent less.¹¹ In this case, the interaction effect with the zero bracket amount significantly reduced the impact of several itemized deductions.

On the other hand, the combined cost of several income tax exclusions could result in a greater revenue loss than the sum of the individual items. This could happen because the combined effect of several exclusions could reduce an individual's marginal tax rate. As less income is excluded, however, the marginal tax rate becomes higher. Because the revenue loss for any provision is the product of the excluded amount times the tax rate, a higher rate, would result in a higher revenue loss. Thus, in

¹¹ The Budget of the U.S. Government, Fiscal Year 1982, "Special Analysis G," p. 212.

measuring the effect of several provisions, care must be taken to consider the possible interaction effects among various tax expenditures and other provisions of the tax code. In their estimates of outlay equivalents, the Administration presents aggregate effects of tax expenditures by budget function, taking into account the interactions between the tax expenditures for each function.

Given these caveats, revenue loss estimates provide useful information on the relative size of various tax expenditures and their growth. The estimates show how widely a provision is being used by taxpayers and provide an indication of the longer run revenue gain from repeal.

CHAPTER III. EXPERIENCE WITH TAX EXPENDITURE BUDGETING IN OTHER COUNTRIES

Since the tax expenditure concept was first developed in the 1960s, several countries have found that a tax expenditure budget--or at least a general listing of tax reliefs and incentives--can be helpful with government budgetary and policy analysis. Listing all tax preferences together enables policymakers to make decisions with a better understanding of the total allocation of government resources among policy objectives, economic sectors, and categories of beneficiaries. By calling attention to the amount of government subsidies delivered through the tax system, tax expenditure budgets may also assist governments that wish to abolish or reduce tax expenditures as a means to reduce government deficits. On the other hand, greater awareness of tax expenditures may also encourage their use if they appear to provide effective means for achieving government goals.

While the United States government has published an annual listing of tax expenditures since 1968, most other governments that publish such lists have become interested in the tax expenditure concept only recently. The Federal Republic of Germany, however, was the first country to supply a comprehensive listing of tax subsidies in its budget documents, after a 1967 law required biennial reports on direct and tax subsidies.

In the late 1970s, high deficits forced some governments to use new institutional procedures to help control government spending. (Table 4 shows the fiscal balances of 14 industrial countries for 1979 through 1984.) Several governments developed tax expenditure lists to help demonstrate the level of government resources devoted to various sectors of their economies. Some of these governments also noted the usefulness of tax expenditure budgets for long-term planning and international comparisons, although they considered these uses less important.

Austria has published an annual report on direct and tax subsidies similar to the German report since 1978. Canada, the United Kingdom, France, Spain, and Australia first published tax expenditure lists (or more general lists of tax reliefs and incentives) in 1979 and 1980. In Japan, estimates of "special tax provisions" (mainly tax expenditures) are now usually provided to the legislature at budget time, even though they are not required by law. Government tax analysts have also begun to develop tax expenditure lists in Sweden, the Netherlands, New Zealand, Ireland, and Belgium.

TABLE 4. GENERAL GOVERNMENT FINANCIAL BALANCES^a
(Surplus (+) or deficit (-) as percentage of nominal GNP/GDP)

	1979	1980	1981	1982 ^b	1983 ^b	1984 ^b
Australia	-1.5	-1.0	-0.1	+0.4	-4.4	-4.6
Austria	-2.5	-2.0	-1.8	-2.5	-3.5	-3.5
Belgium	-6.9	-9.3	-13.1	-12.2	-11.3	-11.3
Canada	-1.9	-2.1	-1.2	-5.3	-6.5	-5.7
Denmark	-1.6	-3.2	-7.1	-9.1	-9.3	-8.3
France	-0.7	+0.3	-1.9	-2.6	-3.4	-3.3
Germany	-2.7	-3.2	-4.0	-3.9	-3.7	-3.1
Italy	-9.5	-8.0	-11.7	-12.0	-11.6	-12.4
Japan	-4.8	-4.5	-4.0	-4.1	-3.4	-2.5
Netherlands	-3.7	-3.9	-4.8	-6.4	-6.9	-6.4
Norway	+1.9	+5.7	+4.8	+4.4	+2.1	+1.5
Sweden	-3.0	-4.0	-5.3	-6.9	-8.0	-8.2
United Kingdom	-3.2	-3.3	-2.5	-2.0	-2.5	-2.5
United States	+0.6	-1.3	-1.0	-3.8	-4.4	-3.9
Total ^c	-1.9	-2.6	-2.7	-4.1	-4.6	-4.2

SOURCES: Organization for Economic Cooperation and Development, OECD Economic Outlook, No. 33 (Paris, July 1983), Table 8, p. 34.

- a. On a United Nations' System of National Accounts basis except for the United States and the United Kingdom which are on a national income account basis. General government financial balances include federal, state, and local government financial balances.
- b. OECD estimates and forecasts.
- c. Weighted average calculated using 1981 GNP/GDP weights and exchange rates.

This chapter describes nine countries' experiences with tax expenditure budgeting. The group includes industrialized countries in which a list of tax expenditures or tax subsidies is now regularly included in the budget documents or in which preparation of a tax expenditure list is underway. The last section of the chapter describes some studies that attempt to provide international comparisons of tax expenditure budgets.

OTHER COUNTRIES' EXPERIENCE WITH TAX EXPENDITURE BUDGETING

The Federal Republic of Germany

Since 1967, the Finance Ministry of the Federal Republic of Germany has been required by law to present to the legislature biennial reports on government subsidies, including both direct subsidies and tax preferences.¹ (Similar information had been regularly provided on an ad hoc basis since 1959.) The first report, published in December 1967, listed 122 tax expenditures, classified according to policy objective, type of beneficiary, and tax source. These tax provisions were also grouped with corresponding direct outlay programs to illustrate the total government subsidy in each policy area.² In their November 1981 report, estimates of direct outlays and tax expenditure revenue losses were added together to provide a measure of government participation in each policy area. Descriptions of each subsidy provision also included the provision's legal basis, the date of enactment, the intended objective, the scheduled expiration date (if appropriate), and a comment on the provision's economic efficiency.

Most provisions in the 1967 list were various types of economic incentives; only ten out of the 122 listed were aimed specifically at social welfare assistance. The 1981 report also contained a large number of economic incentives, with about half of the projected 1982 revenue loss attributed to aid to industry and measures promoting economic growth and

¹ Federal Republic of Germany, Federal Ministry of Finance, The Eighth Report on Subsidies: The Report of the Federal Government on the Development of Financial Assistance and Tax Relief for the Years 1979 to 1982, Bundestag publication 9/986 (Bonn, November 1981), p. iii.

² Phillippe Dumas, French Superintendent of the Treasury, "The Tax Expenditure Concept: A New Instrument for Public Finance Analysis," Banque, No. 384 (May 1979), pp. 587 and 591.

increased saving. The other half represented aid to agriculture, transportation, urbanization, housing, and social welfare (see Table 5).³

In Germany, the total revenue loss from tax expenditures has increased in recent years. But, unlike in the United States, German tax expenditures generally have grown more slowly than tax revenues, increasing at about the same rate as GNP. While federal tax expenditures represented about 4 percent of federal revenues in 1966, and grew to about 9 percent in 1975, they represented only about 8 percent in 1980. About half of the total revenue loss from federal, state, and local tax expenditures in 1982 was from provisions in the federal tax system (mainly income taxes) and about half was from provisions of state and local taxation (mainly property taxes).⁴

The recent apparent reductions in German tax expenditures can be partly explained by the fact that, starting in its 1977 report, the Ministry of Finance adopted a stricter interpretation of the tax expenditure concept and divided German tax expenditures into two lists. Tax subsidies that provide benefits to a large majority of taxpayers are no longer strictly considered tax expenditures and are shown separately in an appendix to the subsidy report. To qualify as a special tax incentive or relief, a provision must be aimed at one of four policy objectives: to preserve certain industries or sectors of the economy or help them adjust to new conditions; to promote increased production and industrial growth; to reduce the prices of certain goods and services supplied to households by central sectors of the economy; or to encourage saving.⁵ Germany uses these practical standards as well as the theoretical standard of a comprehensive income tax to decide whether a given tax provision is a tax expenditure or not.

³ German Federal Ministry of Finance, Eighth Report on Subsidies, Survey 10, p. 24.

⁴ Ibid., p. 24 and various tables. Tax expenditures represented a smaller percentage of federal revenues in 1980 mainly because of the definitional change adopted in 1977.

⁵ The Federal Ministry of Finance's decision to change its definition of tax relief removed about one-third of the tax expenditures previously included (as measured by total revenue loss). Descriptions and estimates of each of these deleted provisions are included, however, as a separate appendix to the report. See Federal Ministry of Finance, Eighth Report on Subsidies, pp. 9 and 24.

TABLE 5. FEDERAL REPUBLIC OF GERMANY: REVENUE LOSS FROM TAX RELIEF BY AREA OF ECONOMIC ACTIVITY, 1979 TO 1982 (In percents)

Area of Economic Activity	1979		1980		1981		1982	
	Total ^a	Federal	Total ^a	Federal	Total ^a	Federal	Total ^a	Federal
Food, Agriculture, and Forestry								
Agriculture in general	6	5	5	4	4	3	3	2
European Community agrarian market	2	2	1	1	---	---	---	---
Subtotal	8	8	6	5	4	3	3	2
Industry (Not Including Transportation)								
Mining	1	1	1	1	1	1	1	1
Regional economic structure	24	26	27	28	28	29	29	30
Credit economy	2	1	2	1	b	---	---	---
Industry in general	5	5	5	4	6	5	5	5
Subtotal	32	33	35	35	35	35	35	36
Transportation	6	9	6	9	6	9	6	8
Housing and Urbanization	22	15	21	15	22	16	23	16
Savings Promotion and Wealth Formation	15	14	14	12	13	12	13	11
Other ^c	17	22	18	24	19	25	20	26
Total ^d	100	100	100	100	100	100	100	100

SOURCE: The Eighth Report on Subsidies: The Report of the Federal Government on the Development of Financial Assistance and Tax Relief for the Years 1979 to 1982, Bundestag publication 9/986 (Bonn, November 1981), Table 10, p. 24.

- a. Tax relief provisions in federal, state, and local tax systems.
- b. Less than 0.5 percent.
- c. Includes most social welfare assistance.
- d. Details may not add to totals because of rounding.

Austria

In Austria, a tax expenditure list is included in each year's general report on government subsidies. The first subsidy report, published in 1978, was modeled on the German example. The Austrian reports distinguish between direct and indirect subsidies, defining indirect or tax subsidies, as "government revenues forgone due to exceptions from the general tax norm to the advantage of other agents (jurisdictions, individuals, and other units outside federal government), with a view to their private activities performed in the interest of the general public." This definition excludes tax expenditures of a mere income maintenance character.⁶ Tax expenditure provisions are listed according to budget function--fine arts, science and research, economy, social welfare, saving, and residential building--and type of beneficiary--private households, enterprises, and agriculture. Revenue loss estimates for the central government and the federal government (central, provincial, and local governments combined) are included where possible.

Canada

Since 1979, Canada has applied the tax expenditure concept to its system of budgetary accounting. In order to allocate its resources more efficiently, the Canadian government perceived a need for multiyear budgetary planning and for closer scrutiny of proposals for direct spending and new tax expenditures. In 1979, it introduced the Policy and Expenditure Management System which reorganized the budget process by dividing all direct spending and new tax expenditures into ten policy area groups called "envelopes." The combined direct spending and tax expenditures in each envelope are required to stay within a spending limit set for each fiscal year. The system is designed to promote comparisons and tradeoffs of all types of government aid whenever limited resources force reductions.⁷

At the same time, Canada's Department of Finance published its first official tax expenditure budget. In 1980, a second tax expenditure list providing historical data from 1976 to 1980 was published; another update

⁶ Austrian Ministry of Finance, Subventionsbericht (1980), para. 3.312.

⁷ For more information about the Policy and Expenditure Management System and the integration of tax expenditures into the Canadian budget process, see Congressional Budget Office, Tax Expenditures: Budget Control Options and Five-Year Budget Projections for Fiscal Years 1983-1987 (November 1982), Chapter IV.

is currently being prepared. Both published lists cover only federal personal and corporate income taxes and federal sales and excise taxes. If provincial individual tax expenditures were combined with those of the federal tax system, the total revenue effect was judged to be on average about one-third to one-half greater than the federal values shown.⁸

About 75 percent of the 1980 revenue loss from tax expenditures that could be estimated (estimates were provided for about half of the 206 provisions listed) fell under two budget functions—economic development and support and health and welfare. Also, about 80 percent of the quantifiable increase in revenue loss from tax expenditures between 1976 and 1979 resulted from increases under these two budget functions. The concentration of direct spending in these two areas is also very high, another reflection of the government's policy priorities for economic and social development.

From 1976 to 1979, the growth rate of Canadian tax expenditures was about 50 percent higher than the growth rate of direct spending.⁹ It is not unexpected, therefore, that public interest in the official tax expenditure budgets has been significant. The estimates are frequently quoted by members of Parliament and are used for analysis in both the public and private sectors.

In addition to the formal tax expenditure accounts, the Department of Finance published a special report on tax expenditures for individuals in autumn 1981. The report estimated that in 1979 tax expenditures reduced federal tax receipts from individuals by 13.8 billion Canadian dollars, about 80 percent of the amount actually paid in federal individual income taxes. The report identified several tax expenditures as either outdated or inefficient mechanisms to deliver government subsidies. Others were noted as particularly subject to abuse, thus encouraging tax avoidance.¹⁰ The report was presented with the November 1981 budget, which included proposals to eliminate or reduce several tax preferences. While some of

⁸ Canadian Department of Finance, Tax Expenditure Account (Ottawa, December 1980), pp. 8-9.

⁹ Allan J. MacEachen, former Minister of Finance, "Integration of Tax Expenditures into the Government Fiscal Management System," Bulletin for Fiscal Documentation, International Bureau of Fiscal Documentation, vol. 36 (8-9), (August-September 1982), p. 348. Also reprinted in the Congressional Record (September 27, 1982), p. S12318.

¹⁰ Canadian Department of Finance, Analysis of Federal Tax Expenditures for Individuals (Ottawa, November 1981), pp. 1-2.

these proposals were later modified, the government's policy to institute certain tax reforms generally remained intact.¹¹

Although the experience with the Policy and Expenditure Management System has been brief, it apparently has reduced pressure on the Minister of Finance to introduce new tax preferences. Several new or expanded tax preferences were included in the April 1983 budget, however, along with several special direct spending programs. This "special recovery program" is specifically targeted to provide jobs and promote economic growth in response to the extremely high unemployment now being experienced in Canada.¹²

The United Kingdom

The British government publishes a list of "direct tax allowances and reliefs" in its annual budget documents. (Indirect tax preferences are not listed.) The first list was included in the budget documents for fiscal year 1979-1980. The government does not attempt to identify which provisions in the list can be defined strictly as tax expenditures, or to link the tax relief provisions with direct outlay programs. The list appended to the 1982-1983 budget provided revenue loss estimates for all 108 relief provisions, of which 81 applied to the individual and corporate income taxes and the capital gains tax. Others were provisions of the petroleum revenue tax, the supplementary petroleum duty, the development land tax, the capital transfer tax, or the stamp duty. An estimate of the total revenue loss from tax reliefs was not shown.¹³

11 Canadian Department of Finance, The Budget in More Detail, presented to the House of Commons by the Honorable Allan J. MacEachen, Deputy Prime Minister and Minister of Finance (Ottawa, November 12, 1981), pp. 49-51.

12 Canadian Department of Finance, Budget speech delivered to the House of Commons by the Honorable Marc LaLonde, Minister of Finance (Ottawa, April 19, 1983), pp. 18-19. When the Department of Finance released the budget, it projected unemployment to average 12.4 percent in 1983 and 11.4 percent in 1984.

13 The United Kingdom, The Chancellor of the Exchequer, The Government's Expenditure Plans 1982-1983 to 1984-1985, vol. II (London, March 1983), pp. 98-99. (Note: In the United Kingdom, the government's fiscal year runs from April 1 to March 31.)

The purpose of the British annual listings of tax preferences is purely informational. Even though the tax expenditure lists compiled by the Administration and Congressional staff in the United States are also only informational documents, they attract much more attention than the lists published by the British government. Little text accompanies the U.K. lists; a short introduction outlines the problems involved in estimating revenue losses from tax expenditures. The tax expenditure concept and individual provisions are more fully explained in the U.S. budget documents.¹⁴ Legislators and special interest groups in both countries consult the lists for possible program changes and tradeoffs, but this occurs much more frequently in the United States.

The problems of definition and measurement in estimating tax expenditures have discouraged British tax officials from more extensive work in this area. Any new procedure to integrate tax expenditures into the budget process is therefore highly unlikely. Apart from the technical difficulties, the Treasury's decision may also reflect the British tradition of less public debate and legislative review of budget decisions, with fewer resources devoted to technical support staffs and published information than has been the rule in the United States. In October 1977, the Treasury reported to the Expenditure Committee, a former Select Committee of the House of Commons, that it favored supplying estimates of tax expenditures on an ad hoc basis rather than yearly:

The construction of a tax expenditure budget of the kind compiled in the United States would represent a substantial diversion of effort; and it would only be justified if a comprehensive list of this kind was of significantly greater value as an analytical tool for the appraisal of policy than the provision of par-

¹⁴ See, for instance, Congressional Budget Office, Tax Expenditures: Budget Control Options and Five-Year Budget Projections for Fiscal Years 1983-1987 (November 1982), and preceding annual reports by CBO on tax expenditures. See also "Special Analysis G" in annual Administration budget documents; Joint Committee on Taxation, Estimates of Federal Tax Expenditures for Fiscal Years 1983-1988, committee print (March 7, 1983) and preceding annual Joint Committee prints; and Committee on the Budget, United States Senate, Tax Expenditures: Relationships to Spending Programs and Background Material on Individual Provisions (March 17, 1982).

ticular estimates when specific areas of policy are being studied. For the reasons described above, it is doubtful whether this would be so.¹⁵

Lists of tax allowances and reliefs subsequently were compiled in response to the interest shown in Parliament.

In Britain, recent changes in budget procedure to reduce government deficits have concentrated on controlling direct outlays rather than tax expenditures. Since 1976, cash limits have been imposed on most direct spending programs, with allowances for inflation included in the ceilings.¹⁶ These limits do not, however, represent a move toward integrating spending and taxing decisions within the budget process. The British system introduces separate tax and spending plans with less long-term coordination between them than is seen in most other industrialized countries.¹⁷

France

For the last three years, a detailed tax expenditure budget has been included in the French government's annual budget documents. Article 32 of the Revenue Act of 1980 required that a listing of tax expenditures be published by tax source, policy objective, and category of beneficiary. The first list, published in 1980 for the 1981 budget, included 317 provisions, 123 of which were estimated. In 1981, revenue loss estimates were provided for almost half of the 330 tax expenditures listed, and in 1982 estimates were provided for 165 out of the 342 tax expenditures listed (see Table 6). Provisions related to regional or local tax law were not included and no totals were given.¹⁸

-
- 15 "The Interface of Public Expenditure and Taxation," memorandum by the Treasury, United Kingdom, included in memoranda to the minutes of evidence taken before the Expenditure Committee of the House of Commons, General Subcommittee (October 1977).
 - 16 T.S. Ward, "Budgetary Practice in the United Kingdom," Public Budgeting and Finance, vol. 2, no. 3 (Autumn 1982), pp. 35-42.
 - 17 Institute for Fiscal Studies, Budgetary Reform in the U.K., Report of the Armstrong Committee (Oxford: Oxford University Press for the Institute for Fiscal Studies, 1980).
 - 18 French Ministry of Economy and Finance, Statistics and Financial Studies, No. 381, "Tax Expenditures" (Paris, July 1981), pp. 50-51; and

TABLE 6. FRANCE: TAX EXPENDITURES BY TAX SOURCE, POLICY OBJECTIVE, AND TYPE OF BENEFICIARY FOR 1980 AND 1982 (In percents)

	1980	1982
Tax Source		
Income tax	61	62
Corporate tax	15	16 ^a
Value-added tax	12	14
Stamp duty	3	4
Other indirect taxes	6	1 ^b
Payroll tax	1	c
Wealth tax	d	d
Oil consumption tax	<u>e</u>	<u>3^b</u>
Total	100	100
Policy Objective		
Productive investment	25	15
Regional and sectoral aid	24	20
Social transfers	20	32
Housing	11	10
Saving	10	17
Simplification of administration	5	e
Export trade	3	5
Other	<u>e</u>	<u>1</u>
Total	100	100
Type of Beneficiary^f		
Industrial enterprises	25	27
Families	25	33
Investors	12	e
Inheritors of property	10	10
Agricultural enterprises	8	2
Socially disadvantaged	6	e
Property owners	4	4
Certain categories of workers	3	3

(Continued)

TABLE 6. (Continued)

	1980	1982
Type of Beneficiary (continued)		
Various social categories	e	13
Other	<u>6</u>	<u>8</u>
Total	100	100

SOURCES: Reproduction of sections of Budget Papers for 1981 in France, Ministry of Economy and Finance, Statistiques et Etudes Financieres, No. 381, "Tax Expenditures" (Paris, July 1981), pp. 52-53; and France, Bureau of the Budget, Ways and Means Estimates in Budget Papers for 1983, "Part Three: Tax Expenditures" (Paris, 1982), pp. 106-215.

NOTE: Percentages of the total of estimated tax expenditures only. Just under half of the provisions identified as tax expenditures were estimated. Details may not add to totals because of rounding.

- a. This includes 10 percent also attributable to the income tax.
- b. This includes some incidence of the value-added tax.
- c. Less than 0.5 percent. This does not include income tax provisions regarding wages.
- d. None of the wealth tax provisions were estimated.
- e. Not a category shown in this year's listing.
- f. For 1982, not all of the estimated tax expenditure provisions were assigned to a beneficiary category.

The official lists were compiled after the Minister of Economy and Finance became interested in educating policymakers about tax expenditures as the government sought ways to control continuing large deficits. Earlier government work had already led in this direction; estimates of several tax preferences had been supplied on an ad hoc basis in earlier budget papers and financial reports. Annual reports on public funding for industrial enterprises have been statutorily required since 1974, and they have included information on tax expenditures for business. In 1978, a report on tax preferences for housing was published.¹⁹ In addition, the Council on Taxation (similar to the U.S. Treasury Department's Office of Tax Analysis) has been providing revenue loss estimates for many tax expenditures since 1972. In 1979, the Council published a report that explained the tax expenditure concept and listed 87 provisions that qualified as tax expenditures (mostly without revenue loss estimates).²⁰

Certain criteria for identifying basic or standard tax provisions (as opposed to tax expenditures) have come to be accepted by French tax analysts:

- o How long the provision has been in place: a measure may become the standard after a long period of time;
- o How generally the provision applies: a provision that affects the majority of taxpayers could be considered a standard; and
- o How closely the provision is linked to a principle generally accepted as a standard.

Also, any provisions specifically designed to be special incentives are automatically considered tax expenditures because the basic tax structure is assumed to be neutral in its treatment of different kinds of taxpayers and income. Of course, none of these criteria is absolute, and interpretations of the "specialness" of any given provision may change over time.²¹

French Bureau of the Budget, Ways and Means Estimates, in Budget Papers for 1983, "Part Three: Tax Expenditures" (Paris, 1982), p. 111.

19 Phillippe Dumas, French Superintendent of the Treasury, "The Tax Expenditure Concept: A New Instrument for Public Finance Analysis," Banque, No. 384 (May 1979), p. 587.

20 French Council on Taxation, Report to the President of the Republic (Paris, Journaux Officiels, 1979), Chapters I-III on tax expenditures.

21 French Bureau of the Budget, "Tax Expenditures," in Budget Papers for 1983, p. 113.

Individuals' capital gains, for example, were generally not subject to tax before 1976 and therefore nontaxation of capital gains was judged to be the norm. The law was changed in 1976, however, and now capital gains are generally subject to tax, thereby reversing the standard rule.²²

In its 1979 report, the Council on Taxation emphasized the usefulness of annual tax expenditure budgets. Legislators could use the list for reference if they wished to repeal tax expenditures in order to cut government costs, to expand certain tax expenditures in order to fulfill given policy goals, or to coordinate tax expenditures with direct spending in order to encourage greater efficiency. Tax expenditure budgets would also help to illustrate the priorities of government policy at given points in time. In practice, the French tax expenditure lists appear to receive about the same amount of attention from policymakers as those in the United States. The lists are consulted mainly for suggestions of possible revenue increases during times of fiscal restraint. As more estimates are provided, it is reasonable to expect that they will be referred to more frequently.

The French tax expenditure estimates are not used formally in the government's budget accounting system as in Canada. The French budget process does, however, contain some formal constraints on revenues and direct spending. Once the government in power has submitted its budget, the Parliament votes on revenue and direct spending amounts. Any revenue or spending changes that the Parliament wished to make would have to be accompanied by measures to keep the budget deficit from increasing. For example, if the Parliament wished to increase spending for a particular domestic program above the government's budget proposal, it would also have to propose either to cut back other spending programs or increase taxes. Similarly, an expansion of a tax expenditure provision would have to be accompanied by revenue increases elsewhere or spending cuts. If, on the other hand, the Parliament decided to pay for increased spending or tax expenditures by increasing the deficit, the government is allowed to oppose such proposals and, according to the Constitution, the Parliamentary proposals must then be dropped. As a result, any attempts by the Parliament to increase government expenditures by increasing the government deficit generally have been unsuccessful.²³

²² French Ministry of Economy and Finance, "Tax Expenditures," p. 36.

²³ Article 40 of the French Constitution of 1958; and Guy Lord, The French Budgetary Process (Berkeley, CA: University of California Press, 1973), pp. 25-26.

Spain

In Spain, a tax expenditure list covering both direct and indirect taxation has been included in the central government's annual budget papers since 1980. The tax expenditure listings are published to provide information to government decisionmakers, just as they are in the United States. The estimates are not subject to any vote, but they are frequently referred to during discussions of policy.

The revenue loss from Spanish central government tax expenditures has grown significantly during the last three years. Tax expenditures totaled 425 billion pesetas in 1981 (18 percent of estimated tax revenues), growing to an estimated total of 691 billion pesetas in 1983 (20 percent of estimated revenues).²⁴ In both 1981 and 1983, just under half of the total revenue loss resulted from provisions of the individual and corporate income taxes. Estimates of tax expenditures related to other tax sources--the estate and net wealth taxes, the general tax on trade, and the fiscal monopolies (tobacco and petroleum)--are also provided in the annual tax expenditure listings.

In addition to listing tax expenditures by tax source, recent budget documents show tax expenditures aggregated into major budget function categories to illustrate the policy priorities implied by the tax expenditures in current law. Table 7 compares the functional distribution of tax expenditures in 1981 with the distribution in 1983. Total government resources delivered in the form of tax preferences seem to be about equally split between social relief and economic development, with some tax expenditures also directed toward defense and general services.

Australia

An official list of tax expenditures ("taxation expenditures" in Australian documents) was first included in Australia's Budget Statements for fiscal year 1980-1981.²⁵ The 1981-1982 Budget Statements provided revenue loss estimates for nine tax expenditure provisions that provide relief to individuals through income tax rebates and deductions and for ten

²⁴ Spanish Ministry of Economics and Treasury, Annex to the Budget Papers for 1981 (Madrid, 1981); and Annex to the Budget Papers for 1983 (Madrid, 1983).

²⁵ House of Representatives Standing Committee on Expenditure, Parliament of the Commonwealth of Australia, Taxation Expenditures, Report from the Committee (Canberra, August 1982), p. 21.

TABLE 7. SPAIN: TAX EXPENDITURES DISTRIBUTED BY BUDGET FUNCTION, 1981 AND 1983 (In percents)

	Percent of Total Tax Expenditures	
	1981	1983
Activities of a General Character		
General services	4	1
Defense	<u>1</u>	<u>1</u>
Subtotal	5	2
Social and Community Activities		
Education	1	2
Health, pensions, social security, and charity	9	13
Community aid	12	14
Other	<u>25</u>	<u>20</u>
Subtotal ^b	46	49
Economic Activities		
Agriculture, livestock, forestry, hunting and fishing	5	a
Mining, construction and other industries	8	3
Energy	1	a
Transportation and communication	1	6
Commerce	0	0
Tourism	0	1
Other	<u>34</u>	<u>39</u>
Subtotal ^b	49	49
Total ^b	100	100

SOURCES: Spanish Ministry of Economics and Treasury, Annexes to the Budget Papers for 1981 and 1983.

a. Less than 0.5 percent.

b. Details may not add to totals because of rounding.

tax preferences that aid industry. Several other tax expenditures for individuals and industry, including several special relief exemptions and tax concessions for certain business expenses, were not estimated because of definitional problems and lack of data.²⁶

On its own initiative, Australia's Department of the Treasury expanded the information supplied on tax expenditures in the annual budget papers. In response, Parliament quickly grew enthusiastic for review of the tax expenditure concept and specific tax preferences. In 1982, the House of Representatives Committee on Expenditure held hearings on tax expenditures. The committee requested information that would contribute to a detailed listing and grouping by functional category of tax expenditures. In addition, the committee requested revenue loss estimates for each tax expenditure and a description of the particular government objective each is intended to serve. The Treasury submitted a report (later included in the Committee Report and the 1982-1983 Budget Statements) that listed 113 income and sales tax expenditures by functional category, although very few revenue loss estimates could be calculated.²⁷ The committee also obtained a listing of provisions in the customs and excise tariffs which provide for preferential treatment and therefore may be considered tax expenditures.²⁸

In its report, the Expenditure Committee described fully the potential policy uses of regular and reliable tax expenditure information and the extent to which such information is presently available. Both legislators and Treasury officials recognized the need for better review of the

26 The Honorable John Howard, M.P., Treasurer of the Commonwealth of Australia and the Honorable Dame Margaret Guilfoyle, D.B.E., Minister for Finance, Budget Statements 1981-1982, 1981-1982 Budget Paper No. 1 (Canberra, 1981), pp. 242-247.

27 Australian Standing Committee on Expenditure, Taxation Expenditures, pp. 25-33; and the Honorable John Howard, M.P., Treasurer of the Commonwealth of Australia and the Honorable Dame Margaret Guilfoyle, D.B.E., Minister for Finance, Budget Statements 1982-1983, 1982-1983 Budget Paper No. 1 (Canberra, August 17, 1982), pp. 263-287.

28 Any customs and excise tax preferences were incorporated into the Treasury list for presentation in the committee's report. (See Appendix 3 to the Report for the list.) These items were described in a submission to the committee from the former Department of Business and Consumer Affairs. Australian Standing Committee on Expenditures, Taxation Expenditures, p. 9.

distribution of government resources through the tax system. The committee cited four criteria for review of tax expenditures: the need for stated tax expenditures, their appropriate size, their effectiveness in meeting their stated objectives, and the appropriateness of tax expenditures as alternatives to direct outlay programs. Such a review process would not require any reorganization of Parliamentary committee jurisdictions because of the recent establishment of six Estimates Committees in the House of Representatives. These committees were formed specifically to examine proposed departmental expenditures contained in the annual main appropriation bill, but their mandate is broad enough to include review of tax expenditures without a legislative change.²⁹

In Australia, policymakers appear eager to apply the tax expenditure concept, but currently there are many stumbling blocks in the way of its practical use. Technical staff and data for revenue loss estimating are in relatively short supply. Given present Treasury and Parliamentary interest, however, staff and resources may be increased.³⁰

The Netherlands

The government of the Netherlands has not yet published an official list of tax expenditures. In 1977, however, the Minister of the Treasury set up a working committee of Treasury officials and academics to study the concept. It was to develop a definition of tax expenditures suitable in the context of Dutch tax law, to identify tax expenditures in existing tax provisions, and to calculate revenue loss estimates for each tax expenditure identified. The committee is in the process of writing an interim report that is expected to be finished in 1984.

Ireland

No official tax expenditure budget has yet been published in Ireland. In July 1982, however, a member of the legislature suggested that a tax expenditure list should be compiled and included in the annual finance accounts provided by the Department of Finance.³¹ The Commission on

²⁹ Australian Standing Committee on Expenditures, Taxation Expenditures, p. 6 and pp. 15-16.

³⁰ Australian Budget Statements 1982-1983, pp. 266-268; and Standing Committee on Expenditures, p. 34.

³¹ Dail Proceedings, Report Stage (Dublin, July 8, 1982), Col. 1755-6.

Taxation, an official commission appointed to study options for reform of the Irish tax system, also encouraged the Department of Finance to publish a tax expenditure budget regularly.³²

In responding to these requests, the Irish Minister of Finance said that he did not object to the idea of compiling a list of tax expenditures, but such a list should be included instead in the Annual Report of the Revenue Commissioners.³³ The list could thus be published without any new statutory requirement. The Minister of Finance seemed reluctant to assign a more official status to the proposed tax expenditure list by including it in the annual budget because of the many conceptual, definitional, and administrative problems that would have to be solved in order to complete it. This view is similar to the one held by Treasury officials in the United Kingdom, who decided to avoid many definitional and administrative problems by including all direct tax reliefs in their lists and by qualifying many of their estimates.

Belgium

The tax expenditure concept and the issues involved in compiling a tax expenditure budget have received relatively little attention from government officials in Belgium. In late 1982, when the Minister of Finance presented the government's budget for 1983 to the House of Representatives, he said that the data were lacking for a listing of tax expenditures that benefit individuals.³⁴ The usefulness of such a list had already been recognized, however, and the Finance Minister recently charged the Superior Council on Finance (an official government commission) to examine the definitional and measurement issues and to work on compiling a tax expenditure list.³⁵

³² Commission on Taxation, "Direct Taxation" (Dublin, July 1982), p. 88.

³³ Dail Proceedings (July 8, 1982), col. 1755-6.

³⁴ Belgian Minister of Finance, Report to the House of Representatives on the Budget of Ways and Means for 1983, p. 92, as quoted in a draft of Max Frank, "Tax Expenditures," article to be published in October 1983 in The Cahiers Economiques de Bruxelles. Note that the fiscal year for the Belgian government is the same as the calendar year.

³⁵ In July 1982, the Belgian Superior Council on Finance emphasized the need for a tax expenditure budget and in February 1983 the Minister of Finance (and thus President of the Council) said that he would ask the Council for an in-depth study of tax expenditures. Max Frank, "Tax Expenditures" draft.

At present, the only available information on tax expenditures in Belgium is the result of academic research. One study identifies and provides revenue loss estimates for 13 tax expenditures related to the individual income tax. These 13 provisions cost an estimated 166.7 million Belgian francs in 1980, about 36 percent of individual income tax receipts.³⁶

International Comparisons

International comparisons of the use of tax expenditures and tax expenditure budgets were first discussed at the 1976 Congress of the International Fiscal Association in Jerusalem and at the 1977 Congress of the International Institute of Public Finance. These meetings revealed the scarcity of information on tax expenditures in most countries.³⁷ More recently, the International Tax Expenditure Project has been working on the development of comparable tax expenditure lists, covering national income taxes, sales taxes, and wealth taxes, for seven countries (Canada, France, the Federal Republic of Germany, the Netherlands, Sweden, the United Kingdom, and the United States). These lists are being compiled according to a common set of guidelines for classifying tax provisions as basic provisions or tax expenditure provisions, instead of the various guidelines now used in individual countries. The project hopes to provide better information for international comparisons (such as those of the Organization for Economic Cooperation and Development) of budgeting policies and the distributional consequences of certain tax expenditures. The project's results may also make possible the use of the tax expenditure concept in bilateral and multiateral tax treaties.³⁸

³⁶ Daniele Meulders and Jean-Louis Six, "Budget of Tax Expenditures Related to the Tax on Individuals," Cahiers Economiques de Bruxelles, No. 98 (Brussels, 2nd trimester, 1983), pp. 280 and 287.

³⁷ Paul R. McDaniel, "International Aspects of the Tax Expenditure Concept," a study prepared for the United States Treasury Department, Contract No. T05-80-9, IA-133 (1981), Sec. 1.2.

³⁸ *Ibid.*, Secs. 2.0 - 2.5.

LESSONS TO BE LEARNED FROM THE INTERNATIONAL EXPERIENCE

Analytical and Technical Requirements

The tax expenditure concept can be applied successfully to different government systems, although the definitional and administrative problems of compiling estimates for a comprehensive tax expenditure budget can be quite onerous. The task is especially difficult if a government has not previously collected extensive data on taxpayers' use of tax preferences. It is also not surprising to see that, as the data and the technical expertise needed to compile tax expenditure lists become more available, the resulting lists receive greater official recognition.

Many governments have routinely supplied estimates for tax provisions on an ad hoc basis. A government is likely to develop a tax expenditure budget only if the advantages of a formal listing presented at the same time as the annual spending budget are viewed to be quite significant. The British Treasury, for example, stated that it was in favor of estimating tax expenditure provisions only upon request rather than annually, because of its limited resources. After a Parliamentary committee held hearings on the potential usefulness of a tax expenditure budget, however, a decision was made to publish a broad list of tax reliefs with each year's budget. The British Treasury listings do not attempt to identify which provisions qualify in strict theoretical terms as tax expenditures, however, and Treasury officials warn that many of the estimates included are "particularly tentative and subject to a wide margin of error."³⁹

Comparison with the United States

Comparing the evolution of tax expenditure budgeting in other countries with the United States' experience reveals many similarities and also some interesting differences. Germany and Austria, for example, publish more general listings of both direct and tax aids. By grouping outlay and tax subsidies together within each budget function, the German and Austrian reports illustrate the allocation of both types of government spending and the relative importance of each in each policy area. To do this in the United States, it would have to be decided whether to present tax expenditure estimates in the form of revenue losses or outlay equivalents and a list of existing direct subsidies would have to be integrated with the tax expenditure tables.

³⁹ The United Kingdom, Chancellor of the Exchequer, The Government's Expenditure Plans 1982-1983 to 1984-1985, p. 99.

Unlike in the United States, tax expenditures and direct spending are treated together in the budget process in Canada. All types of government aid are voted as a package for each policy area. The envelope system thus encourages tradeoffs among the various types of subsidies. In the United States, such formal coordination between tax expenditures and direct spending would require some important changes in the traditional jurisdictional boundaries of several legislative committees.⁴⁰

⁴⁰ For more discussion of the various ways in which tax expenditures could be coordinated with direct outlays, see CBO, Tax Expenditures (November 1982), Chapter III.

APPENDIXES

APPENDIX A. TAX EXPENDITURE ESTIMATES FOR
FISCAL YEARS 1983-1988

This appendix estimates tax expenditure revenue losses by budget function and subfunction for fiscal years 1983-1988 (see Table A-1). These tax expenditure estimates are identical to those prepared by the Joint Committee on Taxation (JCT) and published in March of this year. They reflect the law as enacted through the 97th Congress. As discussed in Chapter II, there are important differences between these estimates and those prepared by the Administration as part of its budget submission for fiscal year 1984.¹

The Administration's budget also shows the "outlay equivalents" of all tax expenditures--that is, the amount of budget outlays that would be necessary to provide an equivalent amount of direct subsidies to tax expenditure recipients. The outlay equivalents are often higher than their respective tax expenditures, since, to provide equal benefits, they would have to include the amount of taxes that recipients must pay on many outlay subsidies but not on tax subsidies. The difference between tax expenditure revenue losses and outlay equivalents is discussed in more detail in Chapter II and Appendix D.

¹ The Budget of the United States Government, Fiscal Year 1984, Special Analysis G, "Tax Expenditures" (February 1983).

TABLE A-1. TAX EXPENDITURE ESTIMATES BY FUNCTION AND SUBFUNCTION, FISCAL YEARS 1983-1988 (in millions of dollars)^a

Function and Subfunction	Corporations						Individuals					
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986	1987	1988
050 NATIONAL DEFENSE												
051 Department of Defense -												
Military												
Exclusion of benefits and allowances to Armed Forces personnel	---	---	---	---	---	---	2,205	2,250	2,380	2,520	2,670	2,820
Exclusion of military disability pensions	---	---	---	---	---	---	165	160	165	175	185	195
150 INTERNATIONAL AFFAIRS												
155 International Finance Programs												
Exclusion of income earned abroad by United States citizens	---	---	---	---	---	---	1,285	1,300	1,365	1,435	1,505	1,580
Deferral of income of Domestic International Sales Corporations (DISCs)	1,390	1,185	1,075	1,050	1,075	1,110	---	---	---	---	---	---
Deferral of income of controlled foreign corporations	430	345	375	390	420	455	---	---	---	---	---	---
250 GENERAL SCIENCE, SPACE, AND TECHNOLOGY												
251 General Science and Basic Research												
Expensing of research and development expenditures	2,165	2,370	2,360	2,425	2,485	2,535	105	120	125	125	130	135
Credit for increasing research activities	615	650	660	305	65	25	30	35	40	30	5	b
Suspension of regulations relating to allocation under section 861 of research and experimental expenditures	120	60	b	---	---	---	---	---	---	---	---	---

(Continued)

TABLE A-1. (Continued)

Function and Subfunction	Corporations						Individuals					
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986	1987	1988
270 ENERGY												
271 Energy Supply												
Expensing of exploration and development costs												
Oil and gas	660	440	590	740	835	895	875	800	815	855	900	950
Other fuels	30	30	35	35	40	40	---	---	---	---	---	---
Excess of percentage over cost depletion												
Oil and gas	375	430	445	465	510	555	1,425	1,275	1,305	1,410	1,505	1,625
Other fuels	325	350	355	380	410	440	15	15	15	15	15	20
Capital gains treatment of royalties from coal	35	40	40	45	50	55	140	145	160	175	190	205
Alternative fuel production credit	5	20	25	40	105	285	---	---	---	---	---	---
Alcohol fuel credit ^c	5	5	5	5	5	5	---	---	---	---	---	---
Exclusion of interest on state and local government industrial development bonds for energy production facilities	15	20	30	40	55	70	5	10	15	20	20	25
Residential energy credits	---	---	---	---	---	---	340	450	610	700	70	---
Supply incentives	---	---	---	---	---	---	---	---	---	---	---	---
Alternative conservation and new technology credits	215	200	175	100	35	20	10	10	5	---	---	---
Supply incentives												
272 Energy Conservation												
Residential energy credits	---	---	---	---	---	---	330	305	305	260	---	---
Conservation incentives												
Alternative conservation and new technology credits	135	35	15	5	b	---	b	b	b	---	---	---
Conservation incentives												
Energy credit for intercity buses	5	5	5	b	---	---	---	---	---	---	---	---

(Continued)

TABLE A-1. (Continued)

Function and Subfunction	Corporations						Individuals					
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986	1987	1988
300 NATURAL RESOURCES AND ENVIRONMENT												
302 <u>Conservation and Land Management</u>												
Capital gains treatment of certain timber income	275	390	430	500	575	595	95	125	150	175	205	230
Investment credit and seven-year amortization for reforestation expenditures	b	b	b	b	b	b	10	10	10	10	10	10
303 <u>Recreational Resources</u>												
Tax incentives for preservation of historic structures	65	90	110	140	185	240	130	165	215	275	355	460
304 <u>Pollution Control and Abatement</u>												
Exclusion of interest on state and local government pollution control bonds	900	1,025	1,140	1,255	1,375	1,510	440	505	565	620	680	745
Exclusion of payments in aid of construction of water, sewage, gas and electric utilities	45	75	75	80	75	70	---	---	---	---	---	---
306 <u>Other Natural Resources</u>												
Expensing of exploration and development costs, nonfuel minerals	55	60	65	75	80	85	b	b	b	b	b	b
Excess of percentage over cost depletion, nonfuel minerals	270	295	310	335	355	380	10	10	15	15	15	15
Capital gains treatment of iron ore	5	5	5	5	5	10	5	5	5	5	5	10

(Continued)

TABLE A-1. (Continued)

Function and Subfunction	Corporations						Individuals			
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986
350 AGRICULTURE										
351 Farm Income Stabilization										
Expensing of certain capital outlays	85	90	95	100	100	105		495	510	530
Capital gains treatment of certain income	30	35	35	40	40	45		475	500	530
Deductibility of patronage dividends and certain other items of cooperatives	950	980	1,010	1,040	1,075	1,110		-400	-410	-425
Exclusion of certain cost-sharing payments	---	---	---	---	---	---		50	40	30
								45	25	25
370 COMMERCE AND HOUSING CREDIT										
371 Mortgage Credit and Thrift Insurance										
Excess bad debt reserves of financial institutions	335	575	785	930	1,060	1,030		---	---	---
Deductibility of mortgage interest on owner-occupied homes	---	---	---	---	---	---		25,065	30,130	32,785
Deductibility of property tax on owner-occupied homes	---	---	---	---	---	---		9,535	10,480	11,710
Exclusion of interest on state and local government housing bonds for owner-occupied housing	1,060	1,190	1,190	1,145	1,105	1,070		485	475	445
Exclusion of interest on state and local government housing bonds for rental housing	585	735	880	1,035	1,185	1,345		355	430	510
Deferral of capital gains on home sales	---	---	---	---	---	---		3,770	5,625	6,000
Exclusion of capital gains on home sales for persons age 55 and over	---	---	---	---	---	---		1,630	1,875	2,000
								2,160	2,345	2,345

(Continued)

TABLE A-1. (Continued)

Function and Subfunction	Corporations					Individuals				
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986
376 Other Advancement and Regulation of Commerce										
Exclusion of interest on state and local industrial development bonds	2,355	2,790	3,265	3,875	4,385	4,615	570	675	800	985
Exemption of credit union income	170	185	200	220	240	260	---	---	---	---
Exclusion of interest on life insurance savings	---	---	---	---	---	---	4,805	5,170	5,805	6,640
Deductibility of nonmortgage interest in excess of investment income	---	---	---	---	---	---	7,735	8,160	8,815	9,590
Expensing of construction period interest and taxes	505	610	735	855	975	1,110	275	320	390	455
Depreciation on rental housing in excess of straight-line	120	155	165	170	180	185	575	665	720	760
Depreciation on buildings (other than rental housing)	175	200	215	240	265	295	150	165	185	210
Reinvestment of dividends in stock of public utilities	---	---	---	---	---	---	365	415	450	230
Net interest exclusion	---	---	---	---	---	---	---	---	1,110	3,095
Exclusion of interest on certain savings certificates	---	---	---	---	---	---	2,335	550	---	---
Accelerated depreciation on equipment other than leased property	9,510	15,865	18,260	17,445	14,110	13,890	1,015	2,460	2,845	2,825
Safe-harbor leasing:										
Accelerated depreciation and deferral	1,745	1,885	1,635	1,385	1,040	525	---	---	---	---
Investment credit	1,625	915	705	710	515	280	---	---	---	---
Amortization of business start-up costs	15	20	25	30	35	40	105	160	230	285
Capital gains other than agriculture, timber, iron ore, and coal	1,770	2,075	2,130	2,305	2,475	2,695	14,955	14,220	15,365	16,440
Capital gains at death	---	---	---	---	---	---	3,975	3,565	3,665	3,920

(Continued)

TABLE A-1. (Continued)

Function and Subfunction	Corporations						Individuals					
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986	1987	1988
376 Other Advancement and Regulation of Commerce (continued)												
Dividend exclusion	---	---	---	---	---	---	445	435	440	450	460	480
Reduced rates on the first \$100,000 of corporate income	5,690	6,525	7,025	8,060	8,765	9,090	---	---	---	---	---	---
Investment credit, other than for Employee Stock Ownership Plans (ESOPs), rehabilitation of structures, reforestation and leasing	9,965	12,315	16,075	19,870	21,650	22,860	3,220	3,350	3,615	3,945	4,245	4,595
400 TRANSPORTATION												
401 Ground Transportation												
Amortization of motor-carrier operating rights	70	70	50	15	5	b	5	5	5	5	b	---
Exclusion of interest on state and local government mass transit bonds	45	65	75	75	65	75	15	25	20	15	10	20
403 Water Transportation												
Deferral of tax on shipping companies	30	40	40	45	45	45	---	---	---	---	---	---
450 COMMUNITY AND REGIONAL DEVELOPMENT												
451 Community Development												
Five-year amortization for housing rehabilitation	20	25	25	25	25	25	30	35	35	35	35	35
Investment credit for rehabilitation of structures other than historic structures	175	200	185	195	215	235	160	165	160	165	180	200

(Continued)

TABLE A-1. (Continued)

Function and Subfunction	Corporations						Individuals					
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986	1987	1988
500 EDUCATION, TRAINING, EMPLOYMENT AND SOCIAL SERVICES												
502 Higher Education												
Exclusion of scholarship and fellowship income	---	---	---	---	---	---	---	415	375	410	435	460
Employer educational assistance	---	---	---	---	---	---	---	40	20	---	---	---
Exclusion of interest on state and local government student loan bonds	150	200	260	320	390	460	70	100	125	155	190	225
Parental personal exemption for students age 19 or over	---	---	---	---	---	---	---	995	950	885	905	920
Deductibility of charitable contributions (education)	280	345	360	415	480	525	495	495	580	735	660	615
504 Training and Employment Services												
Credit for child and dependent care expenses	---	---	---	---	---	---	---	1,520	1,765	2,465	2,765	3,160
Targeted jobs credit	215	395	355	155	30	5	75	70	30	b	---	---
505 Other Labor Services												
Exclusion of employee meals and lodging (other than military)	---	---	---	---	---	---	---	680	725	870	945	1,030
Tax credit for Employee Stock Ownership Plans (ESOPs)	1,250	1,375	1,875	2,235	2,330	950	---	---	---	---	---	---
Exclusion for employer-provided child care	---	---	---	---	---	---	10	25	55	85	120	155
506 Social Services												
Deductibility of charitable contributions, other than education and health	350	425	445	515	590	645	6,795	6,765	7,930	10,030	9,030	8,370
Exclusion of contributions to prepaid legal services plans	---	---	---	---	---	---	25	25	10	---	---	---
Deduction for two-earner married couples	---	---	---	---	---	---	3,555	5,835	6,350	6,935	7,600	8,460
Deduction for adoption expenses	---	---	---	---	---	---	10	10	10	10	15	15

(Continued)

TABLE A-1. (Continued)

Function and Subfunction	Corporations					Individuals						
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986	1987	1988
550 HEALTH												
551 Health Care Services												
Exclusion of employer contributions for medical insurance premiums and medical care	---	---	---	---	---	---	18,645	21,300	24,280	27,680	31,555	35,975
Deductibility of medical expenses	---	---	---	---	---	---	3,105	2,630	3,070	3,370	3,740	4,165
Exclusion of interest on state and local government hospital bonds	795	960	1,115	1,265	1,420	1,580	385	470	565	625	700	780
Deductibility of charitable contributions (health)	175	215	225	255	295	325	995	990	1,160	1,470	1,320	1,225
Tax credit for orphan drug research	10	15	15	10	---	---	---	---	---	---	---	---
600 INCOME SECURITY												
601 General Retirement and Disability Insurance												
Exclusion of Social Security benefits	---	---	---	---	---	---	1,690	1,660	1,695	1,755	1,840	1,930
Disability insurance benefits	---	---	---	---	---	---	15,685	16,680	18,070	19,640	21,275	23,045
OASI benefits for retired workers	---	---	---	---	---	---	3,765	3,870	4,095	4,355	4,630	4,920
Benefits for dependents and survivors	---	---	---	---	---	---	780	765	765	745	755	775
Exclusion of railroad retirement system benefits	---	---	---	---	---	---	1,870	2,090	2,395	2,755	3,170	3,645
Exclusion of workmen's compensation benefits	---	---	---	---	---	---	170	165	165	160	160	165
Exclusion of special benefits for disabled coal miners	---	---	---	---	---	---	145	135	130	130	130	130
Exclusion of disability pay	---	---	---	---	---	---	---	---	---	---	---	---

(Continued)

(Continued)

TABLE A-1. (Continued)

Function and Subfunction	Corporations						Individuals					
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986	1987	1988
601 General Retirement and Disability Insurance (continued)												
Net exclusion of pension contributions and earnings	---	---	---	---	---	---	---	---	---	---	---	---
Employer plans	---	---	---	---	---	---	---	---	---	---	---	---
Plans for self-employed	---	---	---	---	---	---	---	---	---	---	---	---
Individual retirement plans	---	---	---	---	---	---	---	---	---	---	---	---
Exclusion of other employee benefits	---	---	---	---	---	---	---	---	---	---	---	---
Premiums on group term life insurance	---	---	---	---	---	---	---	---	---	---	---	---
Premiums on accident and disability insurance	---	---	---	---	---	---	---	---	---	---	---	---
Additional exemption for the blind	---	---	---	---	---	---	---	---	---	---	---	---
Additional exemption for the elderly	---	---	---	---	---	---	---	---	---	---	---	---
Tax credit for the elderly	---	---	---	---	---	---	---	---	---	---	---	---
603 Unemployment Compensation	---	---	---	---	---	---	---	---	---	---	---	---
Exclusion of untaxed unemployment insurance benefits	---	---	---	---	---	---	---	---	---	---	---	---
609 Other Income Security	---	---	---	---	---	---	---	---	---	---	---	---
Exclusion of public assistance benefits	---	---	---	---	---	---	---	---	---	---	---	---
Deductibility of casualty and theft losses	---	---	---	---	---	---	---	---	---	---	---	---
Earned income credit ^d	---	---	---	---	---	---	---	---	---	---	---	---
700 VETERANS' BENEFITS AND SERVICES												
701 Income Security for Veterans	---	---	---	---	---	---	---	---	---	---	---	---
Exclusion of veterans' disability compensation	---	---	---	---	---	---	---	---	---	---	---	---
Exclusion of veterans' pensions	---	---	---	---	---	---	---	---	---	---	---	---

(Continued)

TABLE A-1. (Continued)

Function and Subfunction	Corporations						Individuals					
	1983	1984	1985	1986	1987	1988	1983	1984	1985	1986	1987	1988
702 Veterans' Education, Training and Rehabilitation Exclusion of GI bill benefits	---	---	---	---	---	---	130	130	115	100	90	65
800 GENERAL GOVERNMENT												
806 Other General Government Credits and deductions for political contributions	---	---	---	---	---	---	190	200	220	220	230	240
850 GENERAL PURPOSE FISCAL ASSISTANCE												
851 General Revenue Sharing Exclusion of interest on general purpose state and local debt	6,985	7,850	8,695	9,530	10,370	11,280	3,435	3,870	4,295	4,715	5,130	5,580
Deductibility of nonbusiness state and local taxes (other than on owner-occupied homes)	---	---	---	---	---	---	20,060	21,770	26,605	29,970	34,125	39,010
852 Other General Purpose Fiscal Assistance Tax credit for corporations receiving income from doing business in United States possessions	1,350	1,075	1,135	1,240	1,375	1,525	---	---	---	---	---	---
900 INTEREST												
901 Interest on the Public Debt Deferral of interest on savings bonds	---	---	---	---	---	---	50	160	225	290	355	410

SOURCE: Congressional Joint Committee on Taxation, Estimates of Federal Tax Expenditures for Fiscal Years 1983-1988 (March 7, 1983), pp. 10-18.

a. All estimates are based on the tax law enacted through the 97th Congress.

b. Less than \$2.5 million.

c. In addition, the exemption from the excise tax for alcohol fuels results in a reduction in excise tax receipts, net of the income tax effect, of approximately \$40 million for 1983, \$60 million for 1984, \$80 million for 1985, \$95 million for 1986, and \$110 million for 1987 and 1988.

d. The figures in the table indicate the effect of the earned income credit on receipts. The increase in outlays is: \$1,197 million in 1983, \$1,119 million in 1984, \$1,032 million in 1985, \$1,004 million in 1986, \$968 million in 1987, and \$910 million in 1988.

APPENDIX B. TAX EXPENDITURES WITH EXPIRATION DATES

It has become increasingly common in recent years for the Congress to provide expiration dates for newly enacted tax expenditures. The usual rationale is that the scheduled expiration date will provide an opportunity to review the provision carefully to determine whether it should be reenacted. Some provisions are allowed to expire without full-scale review, however, while others are extended with little, if any, review. Table B-1 gives the tax expenditures expiration dates in effect as of the date of publication of this report.

TABLE B-1. TAX EXPENDITURES WITH EXPIRATION DATES

Tax Expenditure	Expiration Date
Exclusion for Employer Educational Assistance Programs	December 31, 1983
Exclusion of Interest on State and Local Housing Bonds for Owner-Occupied Housing	December 31, 1983
Exclusion for National Research Service Awards	December 31, 1983
Suspension of Regulations Relating to Allocation Under Section 861 of Research and Experimental Procedures	August 13, 1984
Exclusion of Contributions to Prepaid Legal Services Plans	December 31, 1984
Targeted Jobs Tax Credit	December 31, 1984
Tax-exempt Bonds for Purchase of Mass Transit Equipment	December 31, 1984
Exclusion for Armed Forces Health Professions Scholarship Awards	December 31, 1984
Safe-Harbor Leasing ^a	September 30, 1985
Exclusion for Employer-Provided Transportation	December 31, 1985
Credit for Intercity Buses	December 31, 1985
Geothermal Equipment Credit	December 31, 1985
Solar and Wind Property Credit	December 31, 1985
Credit for Ocean Thermal Energy Conversion Equipment	December 31, 1985
Biomass Property Credit	December 31, 1985

(Continued)

TABLE B-1. (Continued)

Tax Expenditure	Expiration Date
Credit for Small-Scale Hydroelectric Facilities	December 31, 1985
Residential Energy Conservation Credits	December 31, 1985
Residential Renewable Energy Supply Credits	December 31, 1985
Tax-exempt Bonds for Steam Generating or Alcohol-Producing Facilities Using Solid Waste Material	December 31, 1985
Tax-exempt Bonds for Small-Scale Hydroelectric Facilities	December 31, 1985
Public Utility Dividend Reinvestment Plans	December 31, 1985
Tax for Credit for Research and Experimentation	December 31, 1985
Charitable Contribution Deduction for Nonitemizers	December 31, 1986
Tax exemption for Small Issue IDBs	December 31, 1986
Employee Stock Ownership Plan (ESOP) Investment Tax Credit ^b	December 31, 1987
Tax Credit for Orphan Drug Research	December 31, 1987
Alcohol Fuel Tax Credit and Excise Tax Exemption	
Alternative Fuel Production Credit	December 31, 2000

- a. The safe-harbor leasing provision enacted in 1981 and scheduled to expire December 31, 1983 was replaced by a finance leasing provision in the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248).
- b. Since December 31, 1982, the former ESOP investment tax credit has been replaced by an income tax credit based on aggregate compensa-

APPENDIX C. DIFFERENCES BETWEEN THE ADMINISTRATION AND JCT/CBO TAX EXPENDITURE LISTS

This Appendix discusses the provisions that are included in the JCT/CBO tax expenditure list, but that are excluded from the Administration list (see Table 2 in Chapter II). In general, these differences are the result of judgmental decisions about the definition of the appropriate reference tax structure.

Reduced Corporate Tax Rates

The corporate rate structure generally consists of a single flat rate of 46 percent and reduced rates on income below \$100,000, which are intended primarily as tax relief for smaller businesses. Since the Administration includes both the progressive rate structure for the individual tax and the rate structure for the corporate tax as part of the reference tax rules, it does not include this provision as a tax expenditure.

In contrast, the JCT/CBO include the reduced corporate rates as a tax expenditure.¹ In general, most corporate income is subject to the flat 46 percent rate, and this is the reference tax rate used by the JCT/CBO. Because the reduced rates on income below \$100,000 are generally referred to as a small business benefit, they are viewed as an exception to the general tax rules and, therefore, as a tax expenditure.

Exclusion of Scholarship and Fellowship Income and Public Assistance Benefits

The Administration tax expenditure list does not include the income tax exclusions for scholarships and fellowships and public assistance benefits (for example, AFDC and SSI). The Administration omits these items under the theory that they constitute "gifts," rather than income. In general, the income tax does not attempt to tax gifts as income to the recipient, although under a comprehensive definition of income they would

¹ Canada and France also include reduced corporate rates in their tax expenditure lists.

be taxed.² Neither the JCT/CBO nor the Administration count gifts between individuals as income for purposes of the reference tax structure.

Once the income tax standard has been modified to allow for the exclusion of gift income, however, legitimate disagreements can arise as to what constitutes a "gift." Although the Administration views scholarships and fellowship income and public assistance benefits as gifts, the JCT/CBO do not consider these two sources of income as gifts. In the case of these transfers, the benefits are commonly treated as income to the recipient for purposes other than taxation. For example, these benefits are counted as income for purposes of food stamp eligibility or rent subsidies. Indeed, scholarship and fellowship income is taxable if it is in excess of \$300 per month. Accordingly, these items are viewed as income by the CBO and JCT and their exclusion from taxable income is, therefore, considered a tax expenditure.

Capital Gains at Death

The JCT/CBO and the Administration differ in their definition of the tax expenditure for capital gains at death. Under current law, when the owner of an appreciated asset dies, the gain is not realized for tax purposes, but is transferred to the heirs. In addition, when the asset is actually sold, no tax is owed on the gain that accrued during the original owner's lifetime. This effect is achieved by the provision that allows the heirs to use the asset's market value as of the date of the decedent's death as the cost for determining capital gains, instead of the original owner's acquisition cost. Thus, gains transferred as a result of the owner's death are never taxed.

In general under current law, any time an asset is exchanged or sold income is realized. The CBO and JCT treat the transfer of the asset to the heirs upon the death of an asset owner as a regular transaction, subject to taxation at full rates. Current law allows taxpayers to exclude 60 percent of the gain on assets held for more than one year; this exclusion is considered a tax expenditure. Thus, under the JCT/CBO reference tax rules, the gain that accrued over the life of the original owner is considered to be realized and subject to full taxation at the time of death. This amount is counted as a tax expenditure.

The Administration also includes capital gains at death as a tax expenditure, but does not recognize the revenue loss until the asset is

² Under the unified estate and gift tax, large gifts are already taxed to the donor, but not as income to the recipient.

actually sold by the heir. In addition, the cost of the tax expenditure is only 40 percent of the amount of revenue that would be realized under full taxation. The other 60 percent is included as part of a tax expenditure for the general exclusion for capital gains.

For example, assume that in 1983 the owner of an asset that originally cost \$1,000 dies and wills the asset, now with a market value of \$3,000 to an heir. Under current law, no income tax is owed on the transaction. In addition, \$3,000 is considered the new cost (or tax basis) by which all future gains and losses accruing to the heir will be measured. The JCT/CBO measure of the associated tax expenditure in 1983 is the product of the full \$2,000 gain and the original owner's marginal tax rate. If that tax rate is 50 percent, the tax expenditure would be estimated at \$1,000 for 1983.

The Administration would calculate the tax expenditure differently. For 1983, none of the gain would be assumed subject to tax--the excluded \$2,000 gain would not be considered taxable until the heir actually sold the property. Suppose the asset is sold in 1986 for \$3,000. At that point, the Administration would recognize a \$1,000 total tax expenditure, but it would allocate \$400 (40 percent) to the provision exempting gains at death and \$600 (60 percent) to the general capital gains exclusion.³ In 1986, the JCT/CBO method would not record a tax expenditure for this transaction. Over time, the JCT/CBO and Administration approaches should yield a comparable total tax expenditure for each asset transferred, but the timing of the revenue losses will be different. In the example above, the total tax expenditure (both basis carryover and capital gains exclusion) is the same (\$1,000), but it is distributed differently between 1983 and 1986.

Deferral of Income of Controlled Foreign Corporations

Under current law, the income of foreign corporations controlled by U.S. firms is generally not subject to U.S. tax until that income is transferred back to the United States. This allows corporations to defer tax payments until they choose to "realize" them. The CBO and JCT recognize this provision as an exception to the standard treatment of income under an income tax, wherein income is subject to taxation on a current basis. In contrast, the Administration excludes this deferred tax from its tax expenditure list because the reference tax rules used by the Treasury do not consider foreign income "earned" until it is repatriated.

³ The \$300 is the capital gains exclusion for the higher basis ($0.5 \times 0.6 \times 2,000 = \$600$).

The Treasury considers the earnings of foreign corporations beyond the scope of U.S. taxation unless they are brought into this country.

Suspension of Regulations Relating to Allocation under Section 861 of Research and Experimental Expenditure

In general, research and experimental expenses qualify as deductions in determining a firm's taxable income.⁴ For those companies that conduct research and also earn income abroad, the allocation of research expenses is a difficult tax issue. Treasury regulation S. 1.861-8 sets forth the rules that firms must use in distributing these expenses to income from domestic or foreign sources. Corporations are required to "match" their earnings in different countries with the associated research expenditures through the use of allocation formulas. Generally, these rules result in an allocation of a significant amount of domestic research expenditures to foreign source income. While worldwide taxable income is not affected by the apportionment of research and development expenditures to foreign income, the regulation does increase domestic taxes by reducing the amounts that some firms can take as foreign tax credits.⁵ (Foreign income taxes are not actually reduced because the foreign countries do not allow the deduction against income as computed under S. 1.861-8.)

In order to measure net income, it is necessary to match expenses against the associated income. The allocation of U.S. domestic research expenses to foreign income is proper to the extent the two are related. As the Treasury has recently explained:

⁴ The Internal Revenue Code section that allows firms to deduct research and development costs instead of amortizing them also results in a tax expenditure that is recognized by the Administration and the JCT and CBO.

⁵ The deduction for research and development expenditures and the foreign tax credit are interrelated. The foreign tax credit that a firm can take in a given year is limited to the product of the U.S. tax rate (46 percent) and foreign net income, as determined under U.S. tax law. If the limit is exceeded by the taxes actually levied by foreign countries, firms cannot use the "excess" tax credits, but must carry them over into future years. For those firms for which the limit is effective, any reduction in foreign net income, as prescribed by U.S. tax law, will reduce the amount of foreign tax credits that those firms can utilize currently.

Some allocation to foreign income, however, is appropriate on tax policy grounds when domestic R&D is exploited in a foreign market and generates foreign, as well as domestic income. If an allocation is not made, foreign source taxable income will be too high and the higher limitation may allow the credit for foreign tax to reduce U.S. taxes on domestic source income. Thus, requiring no allocation of domestic R&D expense to foreign source income attributable to the expense can be viewed as an R&D incentive.⁶

In the Economic Recovery Tax Act (ERTA) of 1981, the Congress suspended the allocation method in S. 1.861-8 for two years and allowed the allocation of all domestic research and development expenditures to U.S. income. This temporary provision reduced tax revenues and the JCT/CBO list includes this suspension of regulation S. 1.861-8 as a tax expenditure, whereas the Administration list does not. The Treasury considers the allocation of all research expenditures to domestic income as its basic tax rule for this category.

Exclusion of Payments in Aid of Construction of Water, Sewage, Gas and Electric Utilities

Regulated utilities are generally allowed to exclude from gross income amounts contributed to aid in the construction of certain facilities. Qualifying contributions are generally made by builder-developers or local governments to assist utilities in the construction of their capital plants.⁷ These payments, and the resulting facilities, may not be included in the utility's rate base, nor are they eligible for depreciation or the investment tax credit. The JCT/CBO tax expenditure list includes this provision because the contributions are considered as income under the reference tax rules. This treatment taxes contributions as income when received, but allows utilities to take the investment tax credit and depreciation over the life of any assets subsequently purchased.

⁶ U.S. Department of the Treasury, The Impact of the Section 861-8 Regulation on U.S. Research and Development (June 1983), p. 32.

⁷ Customer connection fees do not qualify because they are considered noncapital contributions.

The Administration does not recognize this provision as a tax expenditure, based on the general tax code rule under which contributions to capital are nontaxable. In general, the Treasury considers the nontaxability of all capital contributions as one of its reference tax rules. Because this rule is consistent with the current handling of payments in aid of construction for utilities, no tax expenditure arises under the Administration's interpretation of the reference tax structure.

Deductibility of Patronage Dividends and Certain Other Items of Cooperatives

Currently, firms organized on a cooperative basis may deduct their dividends from gross income.⁸ Unlike regular corporations, cooperatives can avoid the corporate income tax by distributing dividends or by issuing certificates representing the "rights" to their earnings. Thus, the tax law basically exempts (in whole or in part) the income of certain business organizations from the corporate income tax. Income is taxed, however, to the members under the individual or the corporate income tax (if the members are corporations).

The JCT/CBO list includes the dividend deduction for cooperatives as a tax expenditure, based on the rationale that the firms are similar to corporations and should be treated in an analogous manner. That is, cooperatives, like corporations, should be treated as separate economic entities and taxed as such under the basic income tax rules.

The Administration does not include the dividend exclusion of cooperatives as a tax expenditure. The Administration recognizes the different tax rules that apply to different forms of business organization as part of the reference tax structure and does not count these provisions as tax expenditures if income is subject to either the corporate or personal income tax. For example, the tax rules that apply to Subchapter S corporations, partnerships, and cooperatives are all considered part of the reference tax structure. Because cooperative dividends generally must be included in the recipient's income, they are taxable at some level. Thus, the dividend deduction satisfies the Administration's criteria as part of the basic tax structure that allows for different forms of business enterprise.

⁸ A cooperative firm is a business organized for the benefit of and owned by its patrons.

Exclusion of Employer-Provided Child Care

The Congress included a provision in ERTA that allows taxpayers to exclude payments made by employers for child care from their gross incomes. Thus, firms find it attractive to compensate employees in the form of dependent care assistance rather than cash. The CBO and JCT include this provision as a tax expenditure, reasoning that employer-provided child care is a form of income and taxable as such under reference tax rules.⁹ Under the reference tax rules, deductions related to earning income would be allowed. The CBO and JCT, however, do not consider child-care expenses as allowable business expenses.

The Administration does not include the exclusion for employer-provided child care as a tax expenditure. This decision is based on the rationale that child-care expenses are legitimate costs related to earning income and are deductible under the general tax rules that allow for such deductions. Thus, the Administration views the exclusion from income as the logical counterpart of a deduction for child-care expenses.¹⁰

Deduction for Two-Earner Married Couples

The JCT/CBO list includes the deduction for two-earner married couples as a tax expenditure, whereas the Administration list does not. The deduction, enacted as part of ERTA, allows couples to deduct 10 percent of the "qualified" income earned by the spouse with the lower income. Qualified income has a ceiling of \$30,000 and includes only direct compensation from work. This provision is intended to reduce the "marriage penalty" that arises because of the interaction of progressive tax rates and the joint filing system.

Considering this provision as a tax expenditure is a borderline case. The Administration excludes the deduction for two-earner married couples because it views the provision as a part of the general system of rate schedules and filing units that are an integral part of any income tax. The

⁹ Under current law, individuals cannot deduct child-care expenses, but do receive a child-care tax credit.

¹⁰ If the employee were to pay for the child care directly, the employee would be eligible for the child-care tax credit. Both the Administration and the JCT and CBO consider the credit as a tax expenditure, although the Administration only includes the excess of the credit over the "deduction value" of child-care expenses as a tax expenditure.

Administration considers it one of the general tax rules and does not view the provision as a special benefit for a narrow class of taxpayers.

The JCT and CBO include the two-earner deduction as a tax expenditure because the deduction is special in that it is limited to \$3,000 (10 percent of the \$30,000 ceiling) and that it only applies to labor income. Clearly, had the Congress readjusted the joint rate schedules or allowed married individuals to be taxed separately at the lower single-person rates, the change would not have been regarded as a tax expenditure. Because the deduction applies only to labor income (investment income also gives rise to a marriage penalty), it can be argued that it allows special treatment to a certain group of taxpayers.

Exclusion of Certain Cost-Sharing Payments (Agriculture)

As provided by the Revenue Act of 1978, certain payments made to landowners by the federal and state governments may be excluded from their gross income. These payments come from programs that further conservation and improve the environment, forests, and wildlife habitat. In order for the payment to be excluded, "the Secretary of the Treasury must determine that the payment does not result in a substantial increase in the income derived from the property with respect to which the payment is made."¹¹ The payments have a zero tax basis (that is, they do not add to the tax basis of the property) and are taxed as ordinary income rather than capital gains if the property is sold within 20 years.

The Administration does not include this provision on its tax expenditure list. The Administration does not view the payments as income because the payments are not supposed to increase the income of the property (or its market value). Alternatively, the payments could be viewed as the public sector purchasing certain environmental improvements by funneling the payments through the private sector.

The JCT/CBO list does include the cost-sharing exclusion as a tax expenditure because the payments are considered as gross income under the JCT/CBO reference tax rules. Similarly, the costs to the firm of improving the property would be deductible or recovered through depreciation, depletion, or amortization. It can be argued, however, that, if only the public at large benefited from such cost-sharing payments--that is, the private owner realized absolutely no benefit--the payments should not be counted as income under the reference tax rules.

¹¹ Joint Committee on Taxation, General Explanation of the Revenue Act of 1978 (March 1979), p. 315.

APPENDIX D. DIFFERENCES IN MEASURING REVENUE LOSSES AND OUTLAY EQUIVALENTS

As discussed in Chapter II, the Administration's outlay equivalent estimates for certain tax expenditures differ from their associated revenue loss estimates for two main reasons. First, outlay equivalents often must exceed their associated revenue losses because the outlay programs result in increased taxable income. In order to compensate for the increased taxes, an outlay equivalent must reflect the gross amount necessary to assure that the recipient's income after federal tax is the same as with the tax expenditure. Second, timing differences between outlay and tax programs can cause divergences, although the amounts are usually much smaller than those necessary to compensate for increased taxes. Whereas revenue loss estimates reflect the receipt collection cycle, outlay equivalents assume spending to be spread evenly over the year, as most outlays would be.

The differences (or similarities) between the Administration's outlay equivalent and revenue loss estimates for a number of tax expenditures are discussed below. The primary focus of this appendix is whether the Administration used an increase to cover additional income taxes to estimate various types of tax expenditures. In addition, different approaches to measuring the outlay equivalent of several tax expenditures are illustrated if a plausible alternative outlay program exists.

The Investment Tax Credit

Currently, taxpayers are allowed a 10 percent investment tax credit (ITC) for purchases of depreciable equipment.¹ The credit is analogous to a capital grant from the government to industry, and if it were taxed according to the Administration's basic tax rules, firms would not be allowed to depreciate the part of the property purchased with government funds. In other words, under the reference income tax, the depreciable tax basis of property purchased with the ITC would be reduced by 10 percent (or be "fully adjusted") to reflect the investment credit; the remaining 90

¹ Property in the three-year cost recovery class is allowed a 6 percent credit. Additional investment credits are allowed for certain energy supply and conservation property, as well as for rehabilitation of structures and reforestation expenditures.

percent would be subject to regular depreciation rules. Under current law, however, the tax basis of an asset is adjusted by 50 percent so that taxpayers are allowed to depreciate one-half of the "government-financed" share of the asset.

As calculated by the Administration, the outlay equivalent for the ITC is larger than its revenue loss because the former includes the tax on depreciation deductions that firms are allowed on 50 percent of the credit. For example, suppose a firm purchases a \$1,000 piece of equipment that is considered five-year property for depreciation purposes. The current investment tax credit is 10 percent, which allows the firm a \$100 credit. In effect, the government has purchased 10 percent of the property for the firm. Under current law, the firm is allowed to depreciate \$950 in this case. This enables the firm to take depreciation deductions on a base that is \$50 greater than its net cost to the firm. In the first year, the firm may deduct 15 percent of the asset's depreciable base--\$142.50 in this case--\$7.50 of which is attributable to the government's ownership interest. The \$7.50 deduction is worth \$3.45 to the corporate taxpayer in the 46 percent marginal tax bracket. Over the life of the asset, the owner will generate extra depreciation deductions worth \$23.00, or 23 percent of the initial investment tax credit. Therefore, the ITC revenue loss over the asset's life is \$123.

If the government chose to provide capital subsidies through the outlay side of the budget, the recipients would not be allowed to depreciate the cost of assets purchased with government funds. Thus, an outlay program equivalent to the investment tax credit would have to provide grants to cover both the credit itself, plus the additional depreciation deductions. In the example above, the \$50 that the firm could depreciate (but for which the government paid) would be worth \$23.00 in reduced taxes. While the comparable outlay program would not increase taxable income because of the capital grant, the additional outlay to pay for the extra depreciation deductions would be added to taxable income. The outlay equivalent for the extra depreciation would include an income tax increase of \$19.59 so that the total outlay for extra depreciation would be \$42.59.² Thus, an outlay program equivalent to the investment tax credit would be listed at \$142.59, or 43 percent more than the credit

² \$42.59 equals \$23.00 divided by .54. Note that if the \$42.59 was taxable at 46 percent, then the after-tax income would be \$23.00. That is, $\$23.00 = \$42.59 - (.46 \times \$42.59)$.

itself.³ (The \$142.59 would consist of a \$100 capital grant and \$42.59 in grossed-up extra depreciation.) An investor would be indifferent between receiving this amount in the form of an outlay or the current credit plus the extra depreciation. Under the Administration's basic tax rules, the \$100 capital grant would not be included in a taxpayer's income and subject to tax, although the extra \$42.59 would be taxable.

Expensing of Exploration and Development Costs

In general, producers of fuel and nonfuel minerals are allowed to write off immediately ("expense") development costs that would be counted as assets and therefore "capitalized" under normal income tax rules. (Expensing is the most rapid form of accelerated depreciation.) In the case of oil and gas, for example, these costs include well drilling expenses such as fuel, labor, repairs, and supplies; equipment needed to drill and prepare wells; and nonsalvageable costs (so-called "intangible" drilling costs) to construct derricks, tanks, pipelines, and other structures. Under the reference tax rules, firms would be required to add these costs to the book value of the mineral property, and they would be recovered through the use of cost depletion—that is, deductions allowed over time as a property's mineral reserves were exhausted. (Cost depletion for mineral properties is analogous to depreciation for producers' plant and equipment.) This is the accounting treatment currently required for financial reporting purposes.

The immediate tax write-off for development costs allows mineral producers to defer tax liabilities. Although this deduction reduces tax payments in the first year, payments are correspondingly higher in future years. Thus, the expensing provisions merely change the timing of the deductions over an asset's life. This is equivalent to the government providing the taxpayer with an interest-free loan equal to the amount of the tax deferred.

The revenue loss and outlay equivalent estimates should be identical (except for differences caused by timing) and equal to the annual new net "lending" the government provides for the development of mineral deposits. The Administration treats the equivalent outlay program as a direct government loan (at a zero interest rate) to production companies. Thus, the outlay estimates equal the difference between new lending commitments less "repayments" from prior years. As with any government loan program, the loan "proceeds" (or tax benefit) are not subject to taxation as

³ The outlay program would not be a single year appropriation, but would consist of payments over time to match the timing of the ITC and the depreciation pattern.

income. Expensed development costs are treated as a loan on the outlay side because taxpayers must repay the deferred taxes at some later date. This is in contrast to other outlay programs in which the expenditures are not typically "repaid."

The subsidy element attributable to a zero interest rate is not included by the Administration as part of the outlay calculation. Because this is clearly a benefit to the taxpayer and a cost to the government, it would be included in a comprehensive comparison of alternative programs. For example, if the Congress wanted to compare the cost of providing new low-interest loans by the federal Synthetic Fuels Corporation with the tax expenditure for intangible drilling costs, the comparative interest subsidy element would have to be considered. In general, for tax expenditure programs that result in a deferral of tax, it would be useful to include the value of interest subsidies in order to measure the provisions' full cost to the government.

Accelerated Depreciation

The Administration does not provide an outlay equivalent estimate of the accelerated depreciation on buildings and equipment enacted in the Economic Recovery Tax Act of 1981 (ERTA). Although it was generally agreed that the depreciation rules in effect before ERTA--referred to as the Asset Depreciation Range (ADR)--resulted in a tax expenditure, the Accelerated Cost Recovery System (ACRS) does not meet the Administration's new definition of a tax expenditure. The JCT/CBO list of tax expenditures includes the revenue loss associated with ACRS for four different categories: depreciation on rental housing in excess of straight-line, depreciation on buildings other than rental housing in excess of straight-line, accelerated depreciation on equipment other than leased property, and accelerated depreciation and deferral associated with safe harbor leasing. The JCT and CBO include these items because they are considered special provisions under the JCT/CBO's set of reference tax rules.

If the Administration had included the outlay equivalent for ACRS in "Special Analysis G," it would be calculated in a similar manner to the expensing of mineral development costs. Depreciation in excess of the amount that corresponds with actual (or economic) depreciation gives rise to an interest-free loan from the federal government. The loan is equivalent to the excess depreciation deduction multiplied by the taxpayer's marginal tax rate. The loan is repaid in future years when depreciation based on ACRS is less than the actual depreciation of an asset.

Suppose, for example, that a firm purchases a \$1,000 asset which is classified as five-year property for ACRS, but which has an actual useful

life of ten years. Also assume that the true economic depreciation rate of the asset corresponds with the sum-of-years' digits (SYD) accounting formula for depreciation.⁴ Table D-1 shows the calculation of the loan "advances" and "repayments" over the life of the asset. During the first five years of the asset's life, the government makes interest-free loans to the firm in amounts equal to the deferred tax payments that the firm enjoys. Once the asset has been fully depreciated for tax purposes, the firm starts to "repay" the loan amount. Note that over the life of the asset, the sum of loan advances equals the sum of loan repayments (if the marginal rate remains the same.)

The loan amount (or outlay equivalent) equals the revenue loss from this program for each year. For an economy that is continually producing new assets and depreciating old ones, the annual net loan amount equals the difference between new loans and repayments from old ones. The annual net new lending is equal to the net revenue losses, except when timing differences over the year place amounts in different fiscal years.

Although Table D-1 only illustrates the five-year property case, the results would be comparable for other classes of property which are entitled to accelerated depreciation. Note also that the effects of the investment tax credit has been ignored in the table. In this illustration (which is eligible for a 10 percent investment credit), the annual ACRS deduction would have been reduced by 10 percent if the effects of the ITC had been included. (The 50 percent of the investment credit that firms are allowed to "depreciate" would be classified as a tax expenditure within the item for the investment credit.)

Interest

Currently, the tax law allows taxpayers to deduct interest payments for purchases of goods and services even though the associated income arising from ownership of the purchases is not taxable. For example, owner-occupied housing and other consumer durables can be financed by borrowing; the imputed income they yield, however, is not counted as taxable income. Consumer interest deductions in excess of investment income, as well as mortgage interest deductions, are therefore considered tax expenditures.

⁴ The SYD accounting formula is used here to simplify the analysis. The true economic depreciation pattern of an asset may, in fact, be much different.

TABLE D-1. CALCULATION OF OUTLAY (LOAN) EQUIVALENT FOR AN ASSET IN THE FIVE-YEAR RECOVERY CLASS (By fiscal year, in dollars)

Fiscal Year	Tax Depreciation Based on ACRS	Economic Depreciation (SYD)	Excess (+) or Shortfall (-) Depreciation	Loan Amount (+) or Loan Repayment (-) ^a
1	\$ 150	\$ 91	+59	+27
2	220	173	+47	+22
3	210	155	+55	+25
4	210	136	+74	+34
5	210	118	+92	+42
6	0	100	-100	-46
7	0	82	-82	-38
8	0	64	-64	-29
9	0	45	-45	-21
10	0	27	-27	-12
11	0	9	-9	-4
Total	\$1,000	\$1,000	0	0

NOTE: The asset has an historical cost of \$1,000 and no inflation is assumed. The effects of the investment tax credit have been ignored.

- a. The loan amount or repayment is calculated as the product of the excess or shortfall in column three and the taxpayer's marginal tax rate, which is assumed to be the corporate rate of 46 percent.

The comparable outlay program for the mortgage interest deduction used by the Administration assumes that the government pays lenders to provide low-interest loans to borrowers. For example, suppose a homebuyer in the 30 percent marginal tax bracket obtains a 15 percent mortgage. The after-tax cost of borrowing is only 10.5 percent because the interest payments are deducted ($(1-.3) \times 15\% = 10.5\%$). If the outstanding principal is \$75,000, the current tax subsidy provided to the homeowner is \$3,375 ($(15-10.5)$ percent of \$75,000). Under an outlay program, the government could pay the lender \$3,375 to provide below market financing to homeowners (10.5 percent in this case). (This is

similar to how interest subsidies are currently provided, for example, through the student loan program.) The lender would receive the same after-tax income as under the tax subsidy approach. Just like other interest income, the \$3,375 would be subject to income tax at the lender's marginal tax rate, but this amount would not be increased (grossed-up) to cover the additional taxes. In the case of interest deductions, the revenue loss and outlay equivalent approaches yield the same results, except for timing differences.

The mortgage interest deduction also could be calculated on an outlay equivalent basis as a matching grant to the taxpayer. Again, according to the Administration's procedures, this would not involve a gross-up, since the grant would not be included in the taxpayer's income. Using the same conditions as in the example above, the borrower would be provided with a grant equal to \$3,375. In this case, however, the borrower would pay the market interest rate on his mortgage. When an interest rate (or any price) subsidy is provided by the government or by business, it is not counted as part of a taxpayer's taxable income by the Administration. For example, if General Motors provides price rebates or below market financing, the car buyer's taxable income is not altered. It has been argued, however, that selective price discounts should be counted as taxable income to the recipient. Under this view, any tax expenditure that effectively reduces interest rates (or prices) would be grossed-up for income taxes.

State and Local Taxes

Federal tax law currently allows taxpayers to deduct personal and real property taxes, sales taxes, and income taxes levied by state and local governments. To the extent that these taxes are not the result of activities related to the generation of business income, the deduction for taxes is considered a tax expenditure. The deduction is viewed as a subsidy for the purchase of goods and services provided by state and local governments. For example, if a school district assesses a taxpayer \$1,000 in property taxes, and the taxpayer is in the 30 percent tax bracket, the after-tax cost to the taxpayer of "buying" \$1,000 in educational services is only \$700. The taxpayer's real estate levy is reduced by the federal government's \$300 "contribution."

A direct outlay program comparable to the deduction for state and local taxes would be similar to the outlay program assumed for the deduction of interest. The government would provide a direct grant of \$300 to the school district in order to pay for \$1,000 in educational services. The homeowner would be directly assessed only \$700 and would be left as well off in after-tax terms as under the tax deduction approach.

As a general rule, tax subsidies provided to individuals to purchase goods and services show no differences between their revenue losses and their outlay equivalents, as calculated by the Administration. The reason for this is that the tax benefit currently given directly to taxpayers in the form of a tax reduction would be transferred to sellers of the goods or services under an outlay equivalent program, in exchange for providing buyers with a price that equalled their prior after-tax cost. Alternatively, the comparable outlay program could also be designed so as to provide direct payments to individuals. In either case, the Administration's estimate of the revenue loss is equal to the comparable outlay equivalent, except for timing factors. This is true for the consumer interest and state and local tax deductions, as well as the deductions for medical expenses, charitable contributions, and the credits for political contributions. Again, it should be noted that some economists view the tax subsidies used to purchase goods or services as income and argue that an income tax gross-up is in fact required in computing the outlay equivalent in these cases.

Tax-Exempt Interest

The interest on bonds issued by state and local governments to finance general government operations or other selected projects, such as housing or industrial development, is currently exempt from federal income tax. This results in lower interest costs to state and local governments and tax-exempt income for the bondholders. Consequently, the federal government loses the tax revenues from what otherwise would be taxable income under reference tax rules.

The outlay equivalent calculation for tax-exempt interest is the same as the revenue loss calculation, except for timing factors. The corresponding outlay program would eliminate the exemption for interest and result in a higher market interest rate that would compensate lenders for the loss of their tax-preferred status. The federal government could pay state and local governments the differential between the tax-exempt and taxable interest rate in order to maintain their real cost of borrowing. Alternatively, the bondholders could be paid a matching grant by the federal government to hold state and local bonds. In this case, the state or local government's interest rate would remain the same as before. The matching grant would be directly related to each bondholder's marginal tax rate so as to maintain the distribution of the present subsidy. Under either alternative outlay program, there would be no tax gross-up under the Administration's procedures because the grant would not change any party's taxable income.

Consider, for example, a city that issues \$1,000 in bonds at a 10 percent interest rate. Also assume that the investor in these bonds has a

33 percent marginal tax rate, and that the market interest rate for similar taxable bonds is 15 percent. The current revenue loss to the federal government is 33 percent of the interest that would be paid if the bonds were not tax exempt, yielding a loss of \$50 ($0.33 \times (0.15 \times \$1,000) = \$50$). The outlay equivalent program would remove the tax exemption, leading to a rise in the bond interest rate to the market level. The investor's after-tax income would be left unchanged since the extra interest received would be \$50 ($.05 \times \$1,000$) which would just offset the tax increase ($.33 \times 150$). The city, however, would have its interest expense increased by \$50 (the result of paying a 15 percent rate instead of 10 percent) and the federal government would cover this shortfall. Thus, both parties would be left in the same financial position as before.

Fringe Benefits

Currently, fringe benefits provided by employers are often not included in an employee's taxable income. These benefits include contributions for medical insurance, group term life insurance, accident and disability insurance, and educational assistance. By excluding these benefits from taxable income, the federal government is essentially providing a matching grant to the taxpayer equal to the individual's marginal tax rate times the amount excluded. For example, the taxpayer in the 30 percent bracket receives \$0.30 for every dollar contributed through tax-sheltered benefit plans. Thus, if an employer pays \$100 for medical insurance, the taxpayer saves \$30 in taxes that would have been levied had the \$100 been received instead as wages and then used to buy insurance.

An outlay program comparable to employer-provided fringe benefits would give matching grants to individuals based on the amounts employees (or their employers) contribute to eligible plans. In this case, contributions would not be exempt from tax, regardless of which party actually made the contribution. Because the government's matching grant would also be counted as taxable income, the grant (and hence the outlay equivalent) would have to be larger than the revenue loss from the current tax exemption. In the above case, the taxpayer would receive \$100 for insurance that would be taxable, resulting in \$70 in after-tax income. If the government gave the individual only \$130, the taxpayer's after-tax income would be only \$91 ($\$130 - (\$130 \times 0.3)$). The government would have to provide a \$43 grant in order to maintain the taxpayer's after-tax income at the same level as before ($\$143 - (\$143 \times 0.3) - \$100$). In this case, the outlay equivalent is 43 percent higher than the comparable \$30 revenue loss. For the taxpayer in the 30 percent tax bracket, the government would pay the individual \$0.43 for every dollar contributed to a qualified fringe benefit plan.

Employee benefit plans for pensions, such as group pension plans, IRAs, or Keogh accounts, are handled differently because they basically result in a deferral of tax rather than an exclusion. Although retirement contributions to eligible plans are excluded from the taxpayer's current income, they are taxable when they are withdrawn in future years. The primary advantage of these pension accounts is that they can accrue interest income at a tax-free rate of interest on the gross (pre-tax) initial investment. Another advantage of these pension plans is that the income excluded during working years will generally be taxed at a lower rate when it is withdrawn during retirement.

The outlay equivalent program for pension plans could consist of federal government matching grants equal to the interest subsidy element conferred by exclusion of pension interest earnings from taxation. These matching grants would have to be increased to reflect further additional income taxes if the interest subsidy grant were considered to be an increase in the recipient's taxable income. Furthermore, since the estimated differential in tax rates between working years and retirement would have to be included, the outlay equivalent program would tax contributions to pension plans, but would exempt withdrawals during retirement. This additional grant would also have to be grossed-up since it would also represent an increment to the recipient's income. The result of these adjustments would be to ensure that retirees would receive the same amount in tax-free retirement income under the outlay equivalent program that they now receive after tax under present pension arrangements.

Government Transfer Payments

In general, most government transfer payments to individuals, such as AFDC, Social Security, unemployment insurance and railroad retirement, are partially or completely exempt from federal income taxation. These payments give rise to tax expenditures as do other less explicit income support tax programs, such as the additional exemption for the elderly or blind. The revenue loss estimates represent the amount of tax revenue that the government forgoes as a result of these exemptions.⁵

⁵ It should be noted that the Administration does not consider the exemption of public assistance benefits to be a tax expenditure because the exemption is consistent with the Administration's reference tax rules. These tax rules exempt from taxation income that is considered a "gift," such as AFDC, SSI, or fellowship awards. On the other hand, benefits related to employment, such as Social Security, railroad retirement, unemployment insurance, are considered taxable

The comparable outlay program for this kind of tax expenditure would simply be an increase in existing benefit levels to cover the increased taxable income resulting from the elimination of their tax-exempt status. For example, all Social Security income would be taxed in full and benefit levels would be adjusted to leave recipients as well off as before.⁶ For example, a taxpayer in the 11 percent tax bracket with Social Security benefits of \$1,000 now receives a tax benefit of \$110. (This is the government's revenue loss.) Under the outlay equivalent approach, benefits would have to rise by \$124 in order to maintain an after-tax income of \$1,000 ($\$1,124 - (\$1,124 \times 0.11) = \$1,000$).

Although the outlay equivalent is greater than the revenue loss, the net cost to the federal government would equal the revenue loss because of the increase in taxable income. In this example, the government's benefit payments would go up by \$124 while tax receipts would rise by \$14 for a net effect of \$110.

This approach is used in calculating the outlay equivalent for all transfer programs in which the benefits are exempt from taxation. The outlay equivalent should equal the revenue loss after it has been increased to reflect the additional tax payments that would arise if the benefits were in fact made taxable.

Capital Gains

In general, income that is generated upon the sale of an asset held for more than one year is subject to preferential tax treatment because 60 percent of the gain is exempt from tax. The preferential taxation of capital gains gives rise to a tax expenditure because the reference tax rules require full taxation of all income from whatever source.⁷

under the Administration's reference rules because they constitute a return from work.

⁶ Starting in 1984, the Social Security benefits of those households with income in excess of \$32,000 (\$25,000 for individuals) will be subject to income tax.

⁷ Under the Administration and JCT/CBO reference tax rules, capital gains are not indexed for inflation, but are subject to full taxation. This results in ordinary income taxation of purely inflationary gains. This creates a problem for all sources of capital income and expenses, such as interest or dividends.

The outlay equivalent to the capital gains exclusion assumes a taxable matching grant to investors, payable when they sell their assets. Suppose an investor in a 50 percent tax bracket sells a common stock that had been held over one year and had achieved a gain of \$500. Currently, the Treasury would lose \$150 in revenue because \$300 (60 percent) would be excluded from taxable income, and the taxpayer's liability would be \$100 ($.5 \times .40 \times \$500$). If the gain were made fully taxable, the investor's after-tax income would be \$250--\$150 less than under current law. In this case, the federal government would have to provide an additional taxable grant of \$300--or twice the revenue loss amount--in order to restore the taxpayer's original after-tax income. Because taxpayers who earn long-term capital gains are typically in high tax brackets, the outlay equivalent estimate is much higher than the comparable revenue loss amount.

The same type of approach is used to calculate outlay equivalents for capital gains related to timber sales, coal royalties, iron ore, and those related to the basis carryover that occurs when an asset owner dies. For example, when an asset owner dies, the direct outlay program corresponding to the basis carryover would be a matching grant to the decedent's estate. The grant would be equal to the loss of tax that would have been paid had the gain been realized at death, increased to reflect the assumption the grant itself would constitute taxable income.